The Education Digest

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UNESCO

George D. Stoddard
In New York State Education

ON November 16, 1945, in London, representatives of 43 nations signed a final act approving the constitution of the United Nations Educational, Scientific, and Cultural Organization. When this constitution has been approved and accepted by 20 nations through their regular constitutional procedures, the new organization, UNESCO, will come into being. Its purposes are well brought forth in the preamble:

1. Since wars begin in the minds of men, it is in the minds of men that peace must be constructed.

2. Ignorance of each other's ways and lives has been a common cause of that suspicion and mistrust between the peoples of the world through which their differences have all too often broken into war.

3. The war which has now ended was made possible by the denial of the democratic principles of the dignity, equality, and mutual respect of men, and by the propagation, in their place, through ignorance and prejudice, of the doctrine of the inequality of men and races.

4. The wide diffusion of culture and the education of humanity for justice and liberty and peace are indispensable to the dignity of man and constitute a sacred duty which all the nations must fulfill in a spirit of mutual assistance and concern.

5. A peace based exclusively on the political and economic arrangements of governments would not be a peace which could secure the unanimous, lasting, and sincere support of the peoples of the world, and the peace must therefore be founded on the intellectual and moral solidarity of mankind.

Much credit for the idea of UNESCO should be given to the Chinese delegation which in a formal amendment had proposed educational and other forms of cultural cooperation. A great deal of the groundwork had been done by the Allied Ministers in Education meeting intermittently in London for a period of about a year and a half, and the preliminary work for establishing the organization was done at the United Nations Conference in San Francisco. Similarly, the the French government had made extensive plans for the development

George D. Stoddard, President-elect of the University of Illinois, is now New York State Commissioner of Education. Reported from New York State Education, *XXXIII (January, 1946), 270-71, 348.*

of an international body for intellectual cooperation.

Ignorance of the way persons live and of the cultural aspirations of national groups is one factor in the development of anxieties and fears. Within a single nation it permits a leadership based on ignorance, prejudice, and hatred. The Fascist and Nazi governments were dramatic examples—eventually theories of a master race and of expansion through world conquest dominated the thoughts of whole nations. In this way the groundwork was laid for the development of huge armaments.

UNESCO brings together three major groups: The first consists of educators, including not only teachers, scholars, and professors, but persons engaged in such informal aspects of education as the radio, motion pictures, and the press.

The second consists of scientists of the world in every field of endeavor. Certain types of work, of which the atomic bomb is the most notable example, cannot be considered as fit subjects for UNESCO. Such work bearing directly on defense plans, soon to be implemented by the Security Council, will be the work of UNO. Even in this area UNESCO will have a function to perform, since there could be a tendency for the Security Council to be unduly concerned about pure and abstract research. Research leads not only to military inventions, but to widespread benefits in medicine, agriculture, and technology.

The third group, called the cultural group, will place emphasis on languages, literature, the arts, and the various means of communication.

UNESCO will include a general conference, an executive board, and a secretariat. There will be a financial relationship with the UNO.

A few proposed activities which will be presented in the first order of business are these:

1. To establish a clearing house of information for getting educational aid to liberated and devastated countries.

2. To help restore libraries and the facilities of instruction and guidance.

3. To assist in developing technical and professional personnel.

4. To make investigations of educational and cultural needs at the request of various countries.

5. To exchange views on educational and scientific matters.

6. To help people maintain free speech and a free press, together with means for encouraging education through radio and visual aids.

7. To consolidate the work of the numerous educational, scientific, and cultural bodies already in existence.

8. To improve adult education in the cooperating countries.

9. To reduce the barriers that arise from the numerous languages in the world.

10. To assist in developing the arts.

Very likely the first meeting of the General Conference of UNESCO will be held in Paris in the sum-

mer or fall of 1946. Before that time a Preparatory Commission will have completed its work and the general secretary and the executive board will have laid out a definite program. The American representative on the Preparatory Commission is Dr. Grayson N. Kefauver, Dean of the School of Education at Stanford University. [Dr. Kefauver died January 4.—EDITOR.]

No organization of this type can work alone. Hence it is being supplemented by other special agencies under UNO. It has no economic or military sanctions. Its field of cooperation is entirely in the development and exchange of ideas and discoveries. It is pledged not to enter into the domestic activities of any nation, although it holds that the major questions concerning a peace among nations are not domestic issues.

It may be said that for the first time in the history of the world teachers, scientists, and scholars will have an organization through which they may consolidate their efforts and ideals in behalf of a better world order.

Earning to Learn

FOR the past 13 years Ceylon has been developing an educational experiment, known as the rural scheme, under which up to half of the school day may be devoted to "practical" work.

Every effort is made to bring the education closer to the life of the people. The study of occupations, which deals with practically every phase of agriculture from planting to marketing produce, varies with the locality. Even the work in literature, music, and art is concerned with local legends and folklore. Teacher and pupils cooperate in handling the finances of the school; and by sharing in the profits from the work, each pupil hopes to have about $100 to his credit when he leaves school. During the school year 1943-44, the schools had under cultivation a total of 19,487 acres.

Parents at first opposed this program because they felt that the time spent outside the classroom was largely wasted. The records indicate, however, that pupils trained in the rural-scheme schools have consistently done better in the public examinations than have students from the traditional schools.

Much of the credit for the success of the undertaking is due to the training center at Mirigama, which has prepared many teachers.

The Elementary School of Tomorrow

BESS GOODYKOONTZ

In Childhood Education

AS the newspaper clippings travel past my desk, I can see that things are different in the schools this year. For example:

Increased birth rates of the past five years show up in kindergarten and 1A classes. (Philadelphia).

The schools still are short about 20 teachers—the shortage is most serious in elementary grades, music, and physical education. (Salt Lake City).

Because the local birth rate took a spurt in 1937 and has increased ever since, annual increases in school enrolment are anticipated. (Des Moines).

Another innovation is prekindergarten classes for four-year-olds in five schools. (New York City).

Such statements point up some apparent trends. In the first place, the schools must expect a larger clientele than they have had in recent years. Beginning with 1940 the birth rate increased each year for four years and then slowly decreased. Already the kindergartens and first grades throughout the country are feeling the effect of the increase. Specifically, it means that in an elementary school in which there was one kindergarten before, now there must be two. Next year that school will need two first grades instead of one, and so on for four or five years, before the need gradually lessens. If the experience of the last war is repeated, there will be another period of increased birth rates now that the armed forces are returning, the time and length of the period depending on demobilization policies and the economic situation. This means that for another 15 years, at least, there must be continual adjustment in school space, staff, materials, and expenditures.

Bess Goodykoontz is Assistant Commissioner of Education, U. S. Office of Education. Reported from Childhood Education, *XXII (January, 1946), 215-20.*

From now on, too, we will hear more about educational programs for certain groups of people who have been inadequately served or not served at all in the past. Truly impressive changes took place in state laws regarding educational services for young children during the war. Already we are seeing the results of such legislation in the expansion of kindergarten facilities and the establishment of nursery schools or other educational programs for four- and even three-year-olds.

Returning war workers and veterans bring different problems. Some know what they want and go for it directly. Others find it difficult or impossible to find the kind of training they want in their own communities. Schools face considerable difficulty, for instance, in providing eighth-grade work for 20-year-olds in the country or small towns. Parents of school children

as regular members of the school's clientele represent one of the most potentially significant new groups. In the years to come, the numbers and proportions of these as well as other adult groups enrolling are certain to show impressive changes.

Third, we have become more and more an urban population—more students are attending city schools. Large cities get larger. Soon they experience a housing shortage and push their movable population farther into surrounding residential areas. This means new schools to be built—opportunities to build new communities and institutions. As for rural areas, the trend to fewer and larger farms continues, with consequent reduction in, and diffusion of, the rural school population. To provide the kinds of opportunities youth need under such circumstances poses the hardest of our educational problems.

Given more persons and some relatively new groups to serve, as well as new educational services to provide, schools need to take a critical look at their machinery to see whether it is adequate for the job. This is where "structure" comes in. Structure means only the *parts* of something and how they are put together. Our educational structure has been a long time a-building, and it is quite possible that its parts may not be good enough for the job or that they may be squeaky in some of the joints.

For example, just what does that part of the school system called "the elementary school" include? If you were explaining it to a visitor you would have to say something like this: In most communities the elementary school begins with the first grade and ends with the eighth; however, in many communities, mostly the larger cities, there is a prefirst grade or sometimes two grades or classes for children before they go to first grade. Also, in *most* large cities, a large proportion of the elementary schools end with the sixth grade. In some whole states, especially in the South, the seventh is the last grade.

A definition of "high school" would show similar variations. Such lack of uniformity indicates a basic indecision as to what the school's clientele is, what types of educational program the schools should provide, and what sort of organization will best implement them. These problems have seemed almost insurmountable in sparsely settled areas, where a school district may have only one pupil of each age potentially served by the school. This means that reorganization of school structure must start farther back than the individual school district; it means laying out the school district boundaries again all over the country, with the purpose in mind that each district—whether made up of the homes of rural and village people or comprising a town or city and its surrounding area—shall be able to provide all but the advanced professional and technical needs of its children, youth, and adults. When that is done, there will not be 110,000 school districts, some of

them with fewer than five children. More likely the number of districts will be less than 10,000.

As for changes in the internal school organization, there are straws in the wind, but it must be admitted that they strike crosscurrents now and then. For generations the layman's idea has been that children start to school in the first grade. Psychologically, or idealistically, kindergartens were accepted. Actually they have never been available for more than one of every five children.

The recent experience that elementary schools have had in operating emergency educational programs for five-, four-, and even three-year-olds has given great impetus to the movement for educational services for young children. On no innovation in school services has there been more widespread acceptance by parents. It will be a test of the initiative, social consciousness, and inventiveness of administrators to adopt and adjust this service, making nursery schools and kindergartens the normally expected beginning step. Already in some places a pattern seems to be emerging for all ages and groups up to and including the seven- or eight-year-olds.

The junior-high-school form of organization came about because of a number of influences. One of these was the rapid growth of elementary-school enrolments from 1900 to 1930. This coincided with the more careful analysis of the educational needs of adolescent boys and girls, which resulted in an enriched program. In some already overcrowded schools it seemed impossible to provide this program, and the junior high school was organized.

Now, with the prospect of increased enrolment, pressures are again developing for more junior high schools. One state department official commented that the logical thing to do in some situations is for the high school to undertake the responsibility for junior-high-school education within its boundaries.

Some communities will meet the need for more space and increased facilities by providing new community school buildings to house educational services for all children and youth (at least through the thirteenth or fourteenth year) and their parents. In Pasadena, neighborhood schools of a scale and architectural type that will not be suggestive of an institution will house parent, preschool, and five-, six-, and seven-year-old groups. These buildings will be movable so that they can go where the children are; they keep the children close to home literally and psychologically; they are small enough that "the teacher" can know every child and his parents.

Class organization and building arrangements are not the only structural aspects which are showing cracks. What about time schedules?

Here are some questions to ask your friends:

Why does school start in September and close in June? Can't chil-

dren learn during June, July, and August?

Are January and February good months to go to school in your part of the country? Would a longer winter vacation be a good thing for children?

Are there activities such as planting or harvesting going on in your community which children would profit from sharing?

Why isn't there school on Saturday?

$$5 \times 5 \times 4 \times 9 = 900$$
$$365 \times 24 = 8760$$

These figures show the number of hours there are in a year, and for how many of them, on the average, children are at school. Not a big proportion, is it? The school day used to be sometimes from seven in the morning till five at night; children went to school on Saturdays; and there were summer and winter terms. Lack of teachers, work to be done at home, the teachers' convenience, and the cost have all had their influence on our having a five-hour, five-day week, and a nine-month year. It would be interesting to see what a community would do if it started anew and planned the school schedule for a year which would be best for the children and youth involved.

But changes are coming fast. Many forward-looking systems regularly provide recreation programs for both elementary-school children and older youth on Saturdays and during the summer months. Madison, Wisconsin, reports that more than 2300 children "go to school on Saturdays." Wilmington, Delaware, holds a "summer camp" at its Elbert School. During the war the number of communities providing extended school services zoomed to more than 800. As elementary schools continue to gather experience in planning programs of fun and achievement for children, there probably will come about less differentiation between *in-school* and *extended* school activities. There is little reason for arts and crafts at ten o'clock on Friday to differ from arts and crafts on Saturday at two o'clock. Somehow we will learn how to plan more generous, more suitable and more varied programs for children and youth of all ages, and fit them into the daytime hours most appropriate.

Such a full round of activities as this calls for trips to the woods and farms and factories; it will require observation posts beside the lake or stream and in the woods; camps for outdoor living; reference rooms in the public library; shops and school gardens; for older children, farms and dairies and canneries. Our concept of a school as a *building* will gradually give way to a school as an organization which operates in many ways, for many learning experiences.

TEN of South Carolina's 46 counties have no high-school facilities for Negro youth.

Public Relations Through the School Assembly

ORVILLE E. PETERSON AND STANLEY W. MCKEE

In the Elementary School Journal

Orville E. Peterson is a Research Assistant in the Department of Education, University of Chicago. Stanley W. McKee is Principal of the Lincoln School, Highland Park, Illinois. *Reported from the* Elementary School Journal, *XLVI (January, 1946), 266-71.*

TOO often the plan for interpreting the school to the community consists of a one-way communication between the school administrator and the home. Accurate interpretation of the school can best be achieved, however, through direct contact of the community with the school. The significance to be attached to the elementary-school assembly as an instrument for establishing rapport between the school and the community cannot be overestimated. The assembly program should involve a wide range of activities, should provide for maximum pupil participation, and should be centered in the interests of the children. Furthermore, if the school assembly is to have significance as a means of enriching pupil experience and of creating better public relations, it should give consideration to the small-group activities which emerge from classroom experiences as well as to programs involving the whole school.

An all-school assembly might feature a presentation of the patrol boys and a discussion of safety principles; a vegetable and garden show featuring products grown by the pupils; a pet show; a hobby show; an amateur show. A community sing, where the school and community gather to sing their old favorites, can be featured several times during the year.

Examples of small-group programs are "Let's Get Acquainted" and "Parent Parties," both of which offer splendid opportunities for helping teachers, parents, and pupils to get to know one another and for pupil planning. Other programs can be built around the musical experiences of the children, dramatizations of classroom experiences, or class demonstrations. Although lack of space may make it desirable to hold the demonstration in the central assembly, care should be taken to approximate real classroom conditions and to encourage visitors to mingle among the pupils and to observe their work.

A significant aspect of the public-relations program is the practice of surveying the community for talents and materials that can be used in assembly programs or as supplements to the classroom experiences of the child. One plan that has been successful in the Lincoln School involved the use of a questionnaire, asking for the following information, which was given to each pupil to take home:

1. What kinds of filmstrips, 35mm slides, and 16mm moving pictures do you have available? Length? Titles?
2. What phonograph records do you have available?
3. What hobbies do you have that you could demonstrate?
4. Do you have any pictures you could exhibit? Framed? Unframed?
5. Can you talk to our boys and girls about a trip you have taken, an interesting experience, or a special interest you have?
6. Would these materials be available for school use? When?
7. When could you talk to our pupils or demonstrate your hobby?

Since this was the first attempt at tapping the community resources by the school, the planning committee agreed that the best response could be obtained by using a questionnaire which was not too extensive. Most people were eager to cooperate in any way they could.

Among the materials made available to us were more than 200 single records and a number of albums; a large variety of 16mm silent films and slides, various hobby collections, and an extensive collection of books. In addition, the questionnaire revealed a number of persons who were able to make valuable contributions by means of talks, demonstrations, and displays.

The high school is another source of talent. Bringing these older students to the elementary school provides recognition for the visiting pupils and serves as a tie between the schools.

The experiences of parents and teachers brought the following suggestions for increasing the effectiveness of the plan, which the school intends to repeat.

1. A greater effort will be made to contact people who do not have children in school. Many persons who might have made splendid contributions were not aware of the survey.

2. The information about talent and materials, including the person's name, address, telephone number, and the date on which the resource can be used, will be placed on cards to be classified and filed.

3. A record will be kept showing the use made of materials and talent. This will avoid duplication.

4. A summary of the results of the survey will be mimeographed and distributed throughout the community as a testimony of the contributions of its citizens to the improvement of the instructional program.

The use of community resources serves a dual purpose; it enriches the school experiences of the pupil and creates wholesome relationships between the school and the contributing agencies.

Equality of Educational Opportunity?

ALTHOUGH more than half of the children in the nation live in the rural areas, only a little more than a third of the money spent for education is for support of rural schools.

An Experiment in Services for Employees

JAMES L. HYMES, JR.

In Child Service Centers

ONE of the most prevalent reasons for absenteeism, lateness on the job, and early checkouts among the 12,000 women workers of the Kaiser Company in 1943 was the problem of child care. Accordingly, the management drew up plans for two child service centers, each large enough to accommodate 375 children, exclusively for youngsters of parents employed in the two yards. Although the centers were built for children between 18 months and 6 years of age, groups for children from 6 to 12 have been organized on swing and graveyard shifts; Saturdays, Sundays, and holidays; and during summer vacation periods. Most children are regularly enrolled, but each center accepts other children for short periods in family emergencies. For the most part the centers have operated on a 24-hour, 3-shift schedule—sometimes for a 7-day week.

The manager of the child service department and his staff, who determine standards for the care of the children, are all professionally trained. During the first year of operation the staff working with children consisted of 100 trained nursery-school and kindergarten teachers, 10 registered nurses, a medical consultant, and five child nutritionists. Each center has its own infirmary which makes possible the care of the mildly ill child and enables the mother to stay on the job even though the child cannot be in his play group. The infirmary staff will immunize children at the center against diphtheria, whooping cough, and tetanus, and will inoculate for smallpox. The centers issued 883 certificates signifying completion of immunization during the first year—a genuine contribution to community health.

Before a child attends the center his parents talk with one of the staff members. They tell about their child—give straight biographical information and more personal details of his growing up which will enable the staff to treat him as an individual. The staff is constantly available for individual conferences and also holds frequent parent group meetings after working hours. Each center publishes a bi-weekly newsletter telling the interesting things the children have done. The staff also distributes without charge simple pamphlets on child care.

James L. Hymes, Jr., is Manager of the Child Service Centers, Kaiser Company, Inc., and Oregon Shipbuilding Corporation, Portland, Oregon. Reported from the supplement entitled An Experiment in Services for Employees, *prepared by the Child Service Department of the Kaiser Company, Portland, Oregon.*

Cost of operation is borne jointly by the two yards and by parents of the children, who pay a fee of $5 for a six-day week for one child and $3.75 for each additional child. Except for immunization and for home-service food, no other charges are made.

Each building has 15 rooms equipped for 25 children. There are individual lockers for clothes, low shelves for toys, and tables and chairs to fit the size of the children. Walls are light colored. There are adequate provisions for a variety of individual and small-group activities. Adjoining each of the playrooms is a bathroom. Here, as everywhere in the centers, the equipment is child-sized. This makes it easy for children to keep clean and to learn to do things for themselves.

Each child receives all the food he needs during his stay at the center, including his daily requirement of cod liver oil. Children eat with their teachers in the familiar atmosphere of their playrooms. When children eat in a group, it is easy for them to learn to like new foods, to eat full meals, and to feed themselves. Every week each parent is given a menu telling what his child will have to eat at the center, including also suggestions for planning his remaining meals at home. The needs of children with allergies and other special food requirements are met. All food service is under direction of a skilled food nutritionist, who also plans precooked food for the family's supper which mothers buy, neatly packaged, when they call for their children.

The child's day is balanced between activity and rest. All day-shift children have a rest in midmorning and a long nap in the afternoon. Swing-shift children begin their sleep at the centers. Parents like the fact that the outdoor playground, away from all traffic, is completely enclosed by the building itself. There is an inner grass court surrounded by covered cement porches. Groups are divided into age levels by low fences. There are wagons, sand boxes, wheelbarrows, swings, climbing apparatus, large outdoor building blocks, and tricycles. The wading pool in the center of the playground is a favorite in summertime. The location of the centers makes it possible for children to take many safe walks.

Public acceptance of the quality of the program for children has not only built a better labor-management relationship but it has also contributed to local and national public relations. The centers are used constantly for observation trips by student nurses and student teachers from local hospitals and colleges.

The fact that children enjoy coming to the centers carries great weight with their parents. In the daily program there is a time for stories and for music and for rhythms. Children paint; they work with clay; there are carpentry benches and child-sized tools for making things out of wood—all the play materials children love and which will help them to learn.

The Place of Science in Consumer Education

National Science Teachers Association

In the Place of Science in the Education of the Consumer

Reported from the Place of Science in the Education of the Consumer. *Prepared for the Consumer Education Study of the National Association of Secondary-School Principals, 1201 Sixteenth St., N. W., Washington, D. C.: The Study, 1945, 1-4, 20-28. (Single copies of pamphlet are free on request.)*

BECAUSE we now buy so high a proportion of the goods and services we use, skill in buymanship has become increasingly a determiner of the quality of living an individual or a family can achieve. The increased number and complexity of goods and services available, moreover, calls for added intelligence in their proper use and maintenance. Not only are many consumers prevented by lack of scientific understanding from making fully intelligent choice and use of foods, etc., but even the little science they do know can be, and not infrequently is, exploited by pseudo-scientific advertising and sales promotion. Modern civilization has been going through our natural resources at an unprecedented rate; hence consumer education will demand education to effect a more intelligent use of these resources, aimed at the elimination of waste. The consumer, as one of the citizen-managers of our economy, needs to have a thorough understanding of the technology on which our economy is based and of our ability to produce goods and services in amounts sufficient to supply the needs of all.

Although it recognizes that the methods used in teaching and the emphases given will determine the *degree* to which the consumer values are realized, the committee believes that all good science teaching is good consumer education. Unquestionably, the original impetus to consumer education was found in the amazing waste of productive capacity and of money for overpriced, worthless, or even dangerous goods and services—waste which was due largely to ignorance of the relative values of various consumer goods and consumer services. Too often science teachers have left to the student the entire task of translating scientific facts and principles into intelligent action in everyday life.

Therefore, the committee has chosen to limit itself largely to suggestions on selection and organization of subject matter directly connected with the continued production, purchase, preservation, and use of goods and services. Within this framework, there are four contributions science teachers can make:

1. *To help students to use science in making wiser decisions about purchases.*—With respect to actual over-the-counter purchasing, science

can help make analyses of such factors as *usefulness, lasting time, health values, safety.* Science can contribute to the recognition of degrees of quantity through measurement of gas, electricity, and water used in the home; sizes of containers; weights as compared with dozens or volume.

2. *To help students to employ science in the effective use or operation of goods and services.*—The wise purchase of an automobile is important, but not so important as its effective and safe use over a period of years. It is not merely that the student will learn to operate his appliances more cheaply and to keep repair bills low, but also that he will get maximum use from the things he owns.

3. *To help students to use science in improving their own production for home use.*—Science can contribute to improved production through wider use of more productive varieties of plants and animals, such as hybrid corn and pure-bred cows; through soil maintenance and improvement; through conversion of wastes into useful materials. Scientific tests aid in determining and improving quality.

4. *To aid pupils in the wider applications of the methods of science to the solving of consumer problems.*—Experimental tests of consumer goods provide opportunities for realistic application of scientific techniques. Consumer problems offer excellent opportunity for the use of critical thinking.

Naturally, the methods to be used in teaching consumer education are not much different from those which have been found useful in other phases of science teaching. What follows is a selection of a few typical lines of approach which have been found useful.

1. *Pupil participation in planning.*—Study which is partly pupil-planned is often especially successful in consumer education, which depends in a large measure for its success on its closeness to the lives of the students.

In one illustration of this type of work, pupils were told they would have opportunity to participate in planning what should be studied in the area of transportation. Several days were spent in formulating the outline and in setting up objectives, the class contributing most of the suggestions. It must be admitted, however, that the guiding hand was the teacher's. Although the entire group at any one time worked toward the same objective, individual or small-group responsibilities were delegated. As sources of information there were available standard textbooks and references, as well as standard laboratory apparatus and supplies. Among the many sources of information utilized by the pupils during the study were included field trips to an airplane mechanics' school and to an automobile showroom to observe a factory-built "cutaway" model of an automobile, interviews with shop mechanics, and a variety of motion pictures secured from dealers and commercial rental agencies.

Evaluation of the project gave evidence that all had learned something which would be of value to them as consumers. Much more of a teacher's time and energy is required to handle a class in this manner, but one may succeed in arousing interest and getting some degree of attainment from a type of student who would get little from a more conventional course in physics.

2. *Introducing consumer education work in science through immediate community problems.*—Here again is a general line of approach. The interest awakened by the removal of a slum area may easily lead to a study of good housing and of the knowledge necessary to achieve improved conditions in all the houses of the community. There are community needs for improved soil conservation, for improvement of livestock breeds, for improved sanitary conditions in food stores and restaurants. Any such need which is genuinely felt by the students may serve as a dynamic medium for introducing consumer problems as well as scientific study.

3. *Introducing consumer education work in science through individual or family problems.*—Science teachers may introduce consumer education work, for example, in connection with medical and health services. When some members of the class appear to have colds, the teacher might have the students discuss methods of treatment or prevention, the merit of cough drops, lists of proprietary remedies, etc. Use local advertisements for health services offered in the community; discuss possible reasons why most physicians and dentists do not advertise.

4. *Psychological approach.*—It is easier and more practical to approach a study of light through photography—to consider first the purchase, use, and care of cameras, of which the students are fond—than to study light in the abstract. The consumer approach is a psychological approach because it begins with the individuals' interests and desires.

5. *Utilizing clubs.*—Although the general subject has considerable interest for clubwork and field trips are often more conveniently managed with clubs than with classes, consumer education is too important to be carried out only in clubs, unless no other method is possible.

6. *Using the contributions of experts.*—Consultation with business and professional men, representatives of consumer organizations, etc., has wonderful possibilities for instruction.

7. *Tests of goods and services.*—Science instructors have included practical analyses and testing in secondary-school laboratories. Although the tests are certain to have value in showing the kinds of tests necessary to determine the quality of consumer goods, they should not be made to seem a substitute for wise use of labels and other information. They should serve rather to encourage use of labels and to make the information more useful. Exam-

ples of the many possible tests are: tests of butter and oleomargarine; of difference in air pressure of vacuum cleaners; and of thread count, color fastness, shrinkage, and identification of fibers in textiles.

8. *Making consumer goods in the laboratory.*—Such work has educational value in emphasizing the composition and methods of producing commodities, but it is not desirable to suggest that production go back to pioneer days. Rather, science education must show how better and cheaper preparations can be made on a large scale in factories and that more goods and services are available through application of science and technology to factory methods. One of the purposes of science work is to aid in improving production, quality, and distribution of goods at prices which are in keeping with values.

9. *Summer camps.*—Participation in caring for the camp grounds gives a chance for instruction in erosion control, fish and game preservation, fire precautions, etc. Every person can be given experience in preparing and planning meals; and sanitation, first aid, and general health rules can be stressed by the camp nurse or doctors.

10. *Interpretation of statements made about goods and services.*—Although there are many instances in which the consumer may appraise goods directly, in most cases he must rely on statements made about the goods he wishes to purchase.

a) Science offers a means of accurate and significant interpretation of labels: (1) by revealing any difference between the apparent quantity and the stated quantity; (2) by showing that "size" is neither always as exact or as uniform as a scientific unit; (3) by indicating that statements of quality may or may not have a scientific basis. Terms such as *fancy, U. S. Grade B, U. S. P., guaranteed,* etc., should be evaluated; (4) by explaining common terms in technical terminology used to denote contents, e.g., "finely divided calcium carbonate" means ground chalk; (5) by teaching the effects and functions of the preservatives indicated; (6) by noting conditions under which goods are packaged; perishability of vacuum-packed goods, etc.; (7) by evaluating terms of approval, such as "Accepted by the American Medical Association."

b) The use of scientific controls by our government should be studied by learning of the Food, Drug, and Cosmetics Act and its limitations in view of the facts established by science and by noting the work of the U. S. Department of Agriculture.

c) One should consider consumer service reports as attempts at scientific evaluation and should study the work of various types of rating agencies.

d) A truly scientific attitude toward advertising statements should be maintained.

11. *Using the project method in consumer science.*—In many cases the correlated goals of science and

consumer education can best be achieved by organizing instruction around significant major projects. The project should be so important to the students that, in itself, it supplies the motivation for study. Thus class discussion and experimenting assume a minor role. A few suggested projects follow:

a) *Community food locker project.*—The recent development of community food lockers opens up new possibilities for consumers. And, connected with a study of the processes and methods involved, there is ample opportunity for the development of science principles.

b) *A forestry project.* By examples of how wood contributes to man's needs and comforts, the teacher led the pupils to the generalization that wood is a fundamental resource in modern civilization. The need for conserving this resource was discussed by contrasting pictures of the forests as they once were and as they now are. The students agreed on the following as steps they as students might take: (1) plant a forest for the school or community; (2) assist a farmer to establish a wood lot; and (3) introduce living Christmas trees in the community.

c) *Air pressure and consumer education.* This is an interesting example of the many possible tie-ups between material traditionally taught in science and material directly applicable to the knowledge and skills needed by the consumer. Demonstrations of pumps, compressed air, and reduced air pressure can be used.

History by Air

LAST winter, when a number of Montanans showed concern because the school children were not having an opportunity to learn about the rich historical traditions of their state, three organizations banded together to broadcast a series of radio dramatizations on Montana's history. Station Z Bar Net donated 13 weekly quarter-hour periods; a local script writer, with considerable help from the state department of education and from teachers, did the actual writing; and students from Butte High School's speech and drama classes did the broadcasting.

Public libraries reported a substantial increase in the circulation of materials dealing with the pioneering period of Montana and the Northwest Territory as a result of these broadcasts. Students — with the help of progressive teachers — worked on historical scrapbooks, wrote reports and original themes, and recreated the subject matter of the broadcasts in paintings, posters, and modeling; they searched for pioneer western songs and dances. Superintendents of schools outside the radius of the Station Z Bar Net wrote in for copies of the script.

What Business Education Can Contribute to Consumer Education

NATIONAL COUNCIL FOR BUSINESS EDUCATION

In the Relation of Business Education to Consumer Education

THE role that business education should play in the total education of the school will depend on what other departments are contributing. The committee neither expects nor wishes teachers of mathematics and social studies to exclude such topics as taxes, credit, and budgeting from their teaching. To what extent the consequent overlapping will be undesirable will depend on the approaches taken by the several departments to each offering. Care must be taken to prevent wholesale elimination of topics because of what *appears* to be duplication, for certain topics can be covered with profit to the student at several different levels and with the peculiar emphasis of more than one department. The following topics should be considered as possible areas of instruction.

Financial planning and the consumer.—One of the most important functions is to develop interest in wise lifetime planning of the earning, saving, and spending of money. In teaching to establish the habit of keeping a budget, it is necessary to overcome two common bugbears—that budgeting is difficult and that it restricts us and limits the satisfaction of our most cherished desires. Budgeting can be simple and easy. And its basic purpose is to make it possible for us to get those things which we most desire. Choice-making is the factor of first importance in budgeting. The second phase of budgeting is planning to implement the choices made. The business teacher should be able to capitalize on the student's current consumer experiences in demonstrating the importance of financial planning, thus providing stimulating practice in wise money management.

Insurance and the consumer.—The business teacher should approach this problem from the standpoint of the "teen-ager." What are some of the losses that may occur to boys and girls of 15, 16, and 17 years of age? What are some of the best ways to guard against these losses? Boys and girls should be made conscious of the advantages of securing insurance contracts while they are young.

Pupils should understand the different kinds of insurance contracts

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well enough to purchase them intelligently. They should understand the need for getting advice from reliable insurance agents and should be familiar with sources of information about financial soundness of insurance companies and comparative costs of different contracts.

Investments and the consumer.—The advisability of teaching school students many of the aspects of investment is highly questionable. It may be wiser to teach students where and how they can get expert guidance than to try to make them expert. The key investment problem of most people is how to protect the meager amount they can save from their weekly paycheck and at the same time gain some return from it. The teacher should probably teach how to avoid the many tempting "money-making" propositions and develop real understanding of the difference between investing and gambling. There should also be considerably more emphasis on the concept of "investing in oneself," how it may be done, and what returns may be expected.

Credit and the consumer.—The consumer should know something of the various types of credit institutions and where and how to go about getting credit safely and at a reasonable cost. He should be made to understand what credit costs and should be enabled to calculate true interest rates on instalment purchases or loans. Various laws and regulations concerning consumer credit should be investigated, especially those in the local community. And, though the seamy side of the business need not be overemphasized, the student should know of dangerous practices carried on by unethical lenders and should learn to keep out of their clutches.

Taxes and the consumer.—An evaluation of theories and principles of taxation is essential to intelligent participation in public financing. The concept of public financing as a step in cooperative buying of goods and services should be emphasized, for it forms a sound and realistic basis on which citizens can appraise both the fairness and efficiency of their tax systems and the services and goods received in return. The teacher should raise issues concerning our taxing system. What additional services and commodities might well be provided through taxation? What types of taxes are unjust and inequitable? What is the cost of certain goods and services when provided through public financing as compared with their cost when provided by private agencies?

How prices affect the consumer.—The young consumer should learn how prices are actually determined, how prices affect purchasing power, and the relation of price and quality. The influence of competition and monopoly on prices is a good subject for study. Certainly the study should encompass the violent fluctuations of some prices which characterize the business cycle—along with theories of causes and cures of the cycles. Since, to an in-

creasing degree, political action influences prices, the study cannot omit analysis of the government's part.

Housing and the consumer.—The financial and legal problems connected with buying, building, or renting a house should be stressed. The advantages and disadvantages of buying and renting, especially the comparative costs, should be thoroughly examined. The means available for financing the buying or building of a home and the costs of financing should be examined.

Banking and the consumer.—Kinds of banks and their functions should be discussed. Emphasis should be placed on the services provided to the individual. A clear understanding of how to use checking accounts, saving accounts, and personal loans is essential.

Buying problems of the consumer.—The problems of when and where to buy should be carefully analyzed as a part of the study of retail stores. Any discussion of how to buy would probably include the following helpful things to do before going to market: (1) determine needs; (2) decide on quality best suited for particular need; (3) make a shopping list; (4) check advertisements; and (5) plan and organize trip. Guides to observe when shopping include the following: (1) read labels; (2) inspect goods carefully; (3) buy by grade; (4) ask specific questions of clerks; (5) buy in most economical quantities; (6) buy by weight; (7) buy only what you need; (8) check weights and measures; (9) usually pay cash. Certain articles of food, clothing, drugs, and household equipment and furnishings should be used as examples when discussing technical aspects of buying. Buying of services—medical care, for example—deserves attention.

Frauds, swindles, and the consumer.—Even though frauds and swindles continually come to us under new disguises, the methods follow an old pattern which, if understood, can frequently be detected. Students should be impressed with the necessity of being alert. Emphasis should be placed on the need actively to support passage and enforcement of legislation to discourage frauds.

Using sources of information.—One of the greatest services education can perform is to put the young consumer in touch with the best sources of information and to teach him to use the data as guides.

The student should learn to use the valid content of advertising and informative labels. The controversy over grade labeling is a good example of how policy is formed and influenced in our democracy. The student should know the work of various government agencies which serve to inform him and of the work of professional associations which furnish product data within their fields. He should study the analysis and rating of products by the Consumers Union and Consumers Research, as well as the certification of goods by commercial and trade-association laboratories.

The value of consumer departments in periodicals should be analyzed.

Marketing functions and the consumer.—The consumer should know the important functions of the various types of retail outlets; *e.g.*, independent, chain, department, mail order, and consumer-cooperative. It is also necessary to become familiar with services which sellers provide, such as advertising, credit, delivery, and returns. Consumers should understand the difference between costs and services involved in direct and indirect marketing and between advertising which is informative and that based on emotional appeal only. Cooperative efforts in marketing should not be overlooked.

Teachers should encourage discussion of such problems as (1) how the marketing can best be made to serve consumers; (2) what additional services can be rendered at little or no additional cost; (3) what functions of marketing are no longer necessary; (4) what channels will best serve consumers of specific products; (5) what new problems arise under changing conditions.

Communication and the consumer.—Much business overhead would be saved if consumers wrote clearly, specifically stating their needs to the proper persons and departments, eliminating wasted time.

Transportation and the consumer.—Several courses lend themselves to a study of the different methods of transportation; a comparison of the advantages and disadvantages based on cost, safety, convenience, and the time element in transporting goods by mail, express, freight, air, train, truck, or boat. Advantages and disadvantages of different means of travel, as well as sources of information, should be studied.

Legal relations of buyer and seller.—The protection of the consumer by law should be more fully developed. The consumer should understand the general legal principles of contracts and negotiable instruments and should be familiar with some of the specific laws and enforcement agencies that have to do with buying and selling relationships. He should understand those sections of the Sales Act covering warranties and conditional sales. Other protective measures, such as afforded by the Securities and Exchange Act and antitrust legislation, should be investigated. Familiarity with the work of such agencies as the Food and Drug Administration, Federal Trade Commission, and Post Office in eliminating fraudulent schemes is essential. The consumer can deal more effectively with many situations through these agencies than by means of private suit. The teacher should encourage the raising of problems of additional needed protection.

Consumer, producer, and labor relationships.—The dependence of workers, owners, and consumers on one another is fully recognized today. It is important, then, that consumers be familiar with problems of both production and labor.

Do You Learn to Do by Doing?

ARCHER WILLIS HURD

In the Journal of Educational Sociology

IN this country where democratic ideals prevail, slogans and catch phrases are very effective, and undoubtedly they do have considerable influence in emotionalizing a group either for or against a given practice or proposal. Many of these catch phrases, while they admittedly have some truth in them, do not contain the whole truth. "You learn to do by doing" is in this category.

The phrase was originally intended as a warning against the theoretical academic system of education which has been, and still is, too prevalent in our schools. Educators, largely as a result of this admonition, have in recent years stressed the need for experience and practice because often theory is not understandable unless it is preceded, accompanied, or followed by these things. Laboratories have been added to science classrooms; field trips supplement classes in natural sciences; and student teaching is a part of almost every program of teacher training. Yet we must not forget that the method of apprenticeship which was prominent in Europe and which is even now followed in some vocations was built exclusively on the concept of "learning while doing."

With simple manual tasks, perhaps, the practice method is all that is essential. Nevertheless, it is quite obvious that too many workers, instead of improving with long and continued experience, may retrogress because they "go through the motions" of their job without giving any thought to how they may improve on their methods or even take advantage of new discoveries in their field. To remain efficient under changing conditions it is necessary to exert some effort.

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To the statement "you learn to do by doing," then, the words *thinking* and *studying* should be added. "You learn to do by thinking, studying, and doing." What the best order for these elements is we do not know. Logically the three should be interchangeable and sometimes should take place simultaneously. The work under consideration, of course, will have an effect in determining both the order and the amount of thinking, studying, and doing.

But merely thinking, studying, and doing are not enough in all situations. A second revision of the statement should read "You learn to do by purposing, planning, doing, and evaluating." Here again the order of the elements, particu-

larly of the last three, will depend on the circumstances. A challenging problem in any field of learning is that involving the best arrangements for the use of experience and practice in finally achieving the most satisfactory results, bearing in mind that the elements of purposing, planning, and evaluating are inextricably involved. Purposing would seem to come first; furthermore, it is important that the purpose be examined closely to make sure that it is desirable from both a social and an individual viewpoint. The world is full of examples of workers who, though they have been able to master the principle and have followed it through cleverly and intelligently, have not always done so in a socially acceptable manner. Thus the matter of the desirability of the *doing* is the crucial element in the whole process.

The last two world wars have been fought around the question of whether the individual exists for the good of society or whether society exists for the individual. What we must recognize is that society is made up of individuals and that the satisfaction and happiness of each one is bound up with that of everyone else. No social organization yet devised has solved the problem of each one getting his happiness along with his fellows; but if we all purpose to solve the problem, exert all our intellectual abilities toward making plans toward that end, put our theoretical plans to the test of performance, and continually apply the best devices we can find to evaluate results, we can learn eventually how to work together to secure satisfaction, happiness, and contentment for ourselves and our fellows in both individual and social life.

As If by Magic

HERBERT GERMAN, ingenious member of Detroit's traffic force, uses magic to teach safety fundamentals to 400,000 students in the city schools. Each trick is built around a safety rule.

Peter Rabbit—a character all children know—helps German illustrate safety points. With appropriate "abacadabra" and gestures, the policeman withdraws, one by one, from a miniature schoolhouse nine large silk scarves bearing the likeness of the bunny. The act depicts Peter scampering along in a great hurry to get to school, encountering en route the ordinary traffic hazards that every child has to contend with daily. The climax comes when Peter has arrived safely at school. German explains that Peter has observed all the rules—looking in both directions before he steps off the curb, using the safety lane when he crosses an intersection, always crossing on a green light, etc.

Planning and Developing a Unit on Aviation

ELSIE W. ADAMS

In the Elementary School Journal

ON the last day of school, the boys and girls who were to work with me in September talked over our plans for the coming year. What did they want to study? To a man, the boys said, "Aviation." The girls were not so sure. I was; I saw nothing ahead but making model airplanes. I listened to all their arguments, but I did my best to give them good reasons why we should not undertake a unit on aviation. Nevertheless I had been set to thinking. I had long been an advocate of pupil-teacher planning and a believer in the idea that good teaching utilizes the worthwhile interests of children. Here was an interest that needed no stimulating, and I was trying to sidetrack their suggestions. Why? I was afraid of an aviation unit because I realized that my own knowledge about aviation was limited. I was convinced that I did not have the "type of mind" which could understand the scientific principles involved. Before long, however, I was converted to the idea that no other unit could present such real possibilities.

I built up my own background with the same reading materials—those written for upper elementary and junior high school boys helped me most—that I put on bookshelves for the opening of school. Charts, pictures, and maps were on the bulletin boards; older boys supplied model planes. The one with controls that moved like those of a real airplane (purchased for $1.50 from a model-supply store) was worth its weight in gold when we discussed the principles of flight. Of course we had a globe in the room.

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We had open shelves and tables for books and displays. First we decided where each kind of material should be kept and who should be responsible for its care. Then, individually and by twos and threes, we dipped into this book and that pamphlet, we pored over the picture file, and we traced imaginary journeys on the globe and air maps. Children need this browsing period to become acquainted with the breadth of the topic so they will be able to set up vital problems on which to work. At last we began our discussion of what problems to include. The things the children wanted to know and to do soon grouped themselves into seven main problems:

1. Who were the pioneers in aviation and what did they do?
2. How do airplanes fly?
3. How is flying made safe?
4. What do workers in aviation do?

5. What do they do at a modern airport?
6. What are the latest developments in aviation?
7. How will airplanes affect the way people live?

Our next job was to plan our organization for the study of the problems. The reading material was largely of the individual type, so the children decided it would be better if they were organized into three groups, each of which was a cross section of the class. Each group then started to find and read the materials for the problem on which it decided to work first. At no time did more than one group work on any one problem. Much time could have been saved had I given each group a bibliography of materials with definite page references; but letting the children engage in this simple type of research is productive of real learning, and they love the independence of this type of study.

In the first of the meetings which I held three or four times a week with each group, we set up a guide for study. Below is a study guide for unit problem 2.

1. What are the different forces acting on an airplane?
2. How are airplanes constructed to make use of these forces?
3. What part do the motors and propellers play in flying?
4. What are the different controls of an airplane?
5. How does the pilot control the motions of the plane?
6. Make a diagram or model, or plan an experiment to demonstrate the construction of an airplane in relation to the forces working on it.

Since reading and discussing even the most interesting problems day after day becomes tiresome to children, we also planned many related activities. The children worked individually or in groups of two or three. I could not give immediate attention to all he activities of 45 children at one time. This, however, was an advantage, as it gave them an opportunity to exercise initiative and develop greater independence. One of my big responsibilities was to anticipate their needs in the way of materials.

The use of pupil-teacher planning in organizing and planning class activities demands that the teacher have great faith in the children and in their ability. To show how the pupils lived up to my faith in them in this independent work period, let me describe some of their activities. Jim, Ronnie, and Charles (the volatile, lovable, and dynamic problem child of the group), with four or five other boys, organized an Aviation Wing of the Smithsonian Institution, with model airplanes of their own design to represent the development of aviation. Each model was labeled and hung from a wire stretched across the corner of the room. Another group designed and built a model airport, complete with runways, hangars, administration building, field lights, an air liner about to take off, and planes overhead waiting for landing instructions. The buildings were made of corrugated cardboard; the airplanes, from model kits or from the chil-

dren's designs; the people were clay figures; the instruments were constructed of balsa wood and cardboard.

Some made charts to present graphically what they had learned; others designed and made wall hangings in block designs on unbleached muslin; still others wanted to write and illustrate books on pioneers in flying and make cartoon books á la Walt Disney. Everyone was busy at something worthwhile.

We soon found that we had to set up some definite standards to guide activities in these work periods. Some children had not yet learned to make and carry out their plans, and a few would occasionally work aimlessly or disturb the others. We agreed that we should evaluate each work period on the basis of the following questions, which we worked out together:

1. Did we have a plan and stick to it?
2. Did we share our tools and materials?
3. Did we accomplish something worthwhile?
4. Did we work without unnecessary noise?
5. Did we put the room in order quickly at the end of the period?

As the unit developed, the entire group increasingly recognized how much more there was to aviation than merely the thrill of watching the B-29's as they streaked across the sky. The use of radio in aviation and air-traffic control, map reading, and the science demonstrations which they planned and carried out themselves appealed to all the children.

Many of the visual aids which were used have already been discussed—pictures, maps, charts, and globes. We used films at appropriate times in the development of the unit as learning material and not as entertainment. There were informal talks by former students serving in the air forces and also by aviation experts. A representative from one of the major air lines described its activities, discussed future plans, and answered thousands of questions. One of the high lights was the afternoon spent at the Aviation Center of the University of Denver. Several operations institutes for teachers have been held at the local airport. Not all schools are located near a large airport or a glider school, but many of the larger high schools have special equipment, such as airplane engines, which they have secured from Army and Navy surplus. Physics laboratories have apparatus which can be used for demonstration purposes.

We began well in advance of the close of our unit to plan our culminating activity. I wanted the children to feel what the struggle for wings had demanded of man and I wanted them to see something of what the airplane meant for the future. Would the hard work hold their interest? I was as uncertain as I had been that last day of school. Then on one of my "flying-high" days I suggested to the children the idea of writing a choral history of aviation. They were delighted.

Our flight in creative English soon named itself: "We Are Man's Wings." It was real work. Some periods we were inspired; some days we slumped. Those were the periods in which the children said, "We sound like a textbook." We began by reading stories in which artistic language was used in expressing the thought. We thought of words or phrases we might use to lend color to simple facts. We soared through the problems set up at the beginning, but now they became "Wings," "Man and Nature," "The Workers," etc. In writing the introductions or polishing passages that had already been written, we often worked together in one large group. Sometimes we worked individually, with each child choosing a subject. These portions would then be read to the class and discussed. Frequently the ideas of several children could be pooled. As the closing number of our culminating program, "Open House at University Park Airport," we read "We Are Man's Wings." Earnestly, triumphantly, the 45 voices rang out.

In a unit in which there was so much real interest and such a variety of problems, there was no need to manufacture fictitious correlations. I will list a few of the learnings under conventional subject headings:

Reading. — For general information, to find answers for specific problems, to broaden experience in special-interest fields, and for recreation; learning to make simple notes and organize information; learning to use the parts of a book, encyclopedias, the dictionary, and library tools.

English. — Taking part in discussions; reporting on materials, trips, and experiments; explaining the unit to visitors; developing a vocabulary of aviation and related terms; organizing materials for chart making; writing stories for group books; writing letters requesting materials, "thank-you" letters, and letters of invitation to the closing activity.

Science.—Reading science materials; observing science demonstrations; setting up and conducting simple experiments; demonstrating principles of aviation; learning the use of scientific instruments in weather forecasting and the use of aviation instruments; learning scientific principles.

Social studies. — Reading global and Mercator maps; using the globe; locating places on map and globe; developing geographic concepts; tracing travel routes; learning resources of different countries; generalizing on implications of aviation.

Arithmetic.—Measuring; making simple plans to scale; comparing length of travel time by different methods of transportation; comparing rates of travel; reading and constructing graphs; reading instruments; interpreting figures on blueprints.

Art.—Constructing models of buildings and equipment; making and painting clay figures; using crayons, water colors, or colored paper for bulletin-board pictures; illustrating group books; making diagrams showing designs of airplanes; designing and making wall hangings; arranging exhibits; arranging the bulletin boards; lettering posters; illustrating invitations to parents.

Music. — Creating rhythms to suggest whirling propellers, etc.; writing aviation songs to familiar melodies; singing flying songs.

This list could easily be doubled. All through the 16 busy weeks, the pupils' interest provided the motivation for these and many more learning activities.

A Search for Teaching Talent

J. M. GRAINGER

In the Virginia Journal of Education

HOW can more talented young men and women be led to choose teaching as their life work? At the outbreak of the war practically all fit young men teachers were drafted and many of the more alert young women went into other kinds of service. It is estimated that only 15 percent from Virginia plan to return to the schoolroom. Moreover, alarmingly small numbers of talented students are preparing themselves for teaching. Teachers' salaries must be raised, of course; but that is not all. Recruiting for the teaching profession has been on a nonselective basis and high-school principals are frank to say that their more talented graduates do not enter teachers colleges. A strenuous effort must be made among the young men and women to recruit the best teachers obtainable, particularly for the elementary grades.

Realizing the great need to discover and develop scientific talent among high-school boys and girls, the Science Clubs of America have for several years conducted an annual Science Talent Search. By means of science aptitude tests given to high-school seniors throughout the country, 40 of the brightest are selected. They are given a trip to Washington, where, at the close of a weeks' science institute, the 10 best are awarded science scholarships ranging from $100 to $2400.

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A similar search for teaching talent would have much value for the teaching profession and for young people who would like to enter it. It would help to give the public an enlightened view of the teacher's importance. If the most talented and capable young people could be systematically sought out at the right time and enabled to see their way clear to preparing themselves for careers as teachers, their abilities would be conserved and mobilized for the benefit of the children of the country.

The search need not be confined to the seniors in high school but might well extend into the first two years of college. It might also include high-school graduates who for financial or other reasons have not been able to enter college. If the induction of these gifted youngsters into the prospective teaching forces were made an occasion for celebration, teaching would begin to get recognition as "an essential service demanding the highest type of competency and education." A state which wants its teachers to be looked up to by the public must not only

pay them better but must do honor to them in a public way.

Reliable criterions for judging and grading candidates for the teaching profession at the teachers-college level can readily be adapted to judging the fitness of students a year or two younger. An important feature of the Teacher Talent Search might be a study of these selected young people for the purpose of determining the reliability of the tests. The qualities of mind and heart demanded to make a really excellent teacher are so admirable as to challenge even the most gifted aspirant. This point needs public emphasis.

Each entrant should be scored on such points as the following by his school record, by standard tests, and by some competent person or persons well acquainted with the contestant.

1. Intelligent, responsible citizenship.
2. Social maturity and adjustment.
3. Interest in people.
4. Interest in education.
5. Mental ability.
6. Physical health.
7. Emotional stability.
8. High academic record.
9. Mastery of tool subjects.
10. Desirable personal traits.

Entrants should also be examined in writing on a variety of questions and should perhaps be required to prepare a paper, under supervision, on a subject related in a revealing way to education and teaching. Those rating highest might then be brought together for a kind of institute during which they would be interviewed and studied by a competent and distinguished board of judges who would complete the rating and make the awards. The awards should be numerous in order to attract as large a number as possible and they should be substantial enough to give worth and dignity to the whole procedure and to be really helpful in financing an education. Naturally most of the awards would take the form of scholarships or fellowships in institutions for educating teachers. In granting them, it should be stipulated or implied that the recipients are pledged to devote two or more years to teaching in the public schools.

The Talent Search for Teachers should secure the cooperation of local and state teachers' organizations, faculties of high schools and colleges, and honor societies in education. Definite arrangements should also be made with newspapers and radio stations for publicity.

In East Chicago, Ind., high school, a selected number of senior girls spend one hour a day observing and helping teachers in the primary and kindergarten grades. It is hoped that, under the guidance of the teacher to whom they are assigned, these girls will become interested in elementary teaching.

Changing Concept of Teacher Status

ROMA GANS

In the Teachers College Record

TO most of us "teacher status" has come to mean salary, tenure, and retirement. Certainly these three problems are important and far from solved, but to consider status in terms of them only is a serious error. Inquiries indicate that other factors must also be taken into consideration. Appreciation on the part of the public and administrators of the importance of teaching, opportunity for teachers to participate in planning programs, personal satisfaction in growth stimulated by dynamic professional leadership, and a sense of belonging to community life are so essential that even if salaries, tenure, and retirement plans are satisfactory the lack of one or several of these other factors may discourage the very type of teacher that education needs today.

While gains are apparent all along this wider front of status, there seems to be a conspicuous lack of recognition of the relation of the status need to the need to develop a strong educational program. To fulfil our obligation to develop citizens competent to chart new international relations within a permanent peace design and to resolve the many conflicts on the home front, we must be alert, sensitive, continually learning, active in remaking our schools' programs and in giving of our services to the pressing socio-civic needs of our country. Obviously, to do this we must be free from economic or tenure worries; obviously, too, we must be free from the frustrations of other inadequacies of our status. To accomplish one we must continue to achieve the other.

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There are two general oversights or errors which frequently affect the successful flow of this logic in school practice. The first comes from those who are eager to improve the education of children and youth but who feel that the only way to do this with teachers not recently educated and not frequently active in curriculum revision is to increase the very compulsions which have belittled and even benumbed the personality of the teacher. A number of teachers have reported that in recent years they have felt a trend toward restricting their creative efforts rather than toward utilizing them. Participation of the schools in the war effort has been one reason offered for this retarded movement, but it seems unlikely that the participative approach would have been abandoned even to include war work if the importance of participation

had been clearly understood and accepted by administrators.

The second of the general oversights must be lodged at the teacher's door. All too often when an educational revision of the school's work is being contemplated, individual teachers or groups set out to frustrate efforts. When such efforts come from anyone eager for salary improvement, tenure, and adequate retirement compensation, it reveals clearly again that the implicit relationship between the quality of the educational program and the status of the teacher has not been viewed as one interactive force.

If efforts to block the entire program are exerted from within the teacher group, teachers should come into action, correcting the destructive efforts of their erring or shortsighted coworkers. No organized profession grows healthily without resorting to its own correctives. To deny growth in this field of discipline is to act as if we were a special-privileged group, exempt from criticism, and therefore free to decay in our obsolescence. It would be especially timely for all teacher organizations to take stock now of their constructive work toward rebuilding the schools' programs to meet the hopeful aspirations of the present and to participate in initiating far-reaching curriculum revisions in every city of our nation.

The problem is complicated by many threads hard to disentangle. The lag in some schools, produced by poor leadership, results in a disturbance as soon as an aspiring educational leader, whether he is a new teacher, a principal, or a superintendent, makes an attempt to overcome this lethargy. In one community where a change in the high-school program was proposed which would enable youths to receive a diploma without the completion of two years of a foreign language, one teacher conducted a campaign, not only among the teachers, but also among the least ethical "ward heelers" and brought about the dismissal of the principal, the superintendent, and four of the teachers who were strongly in favor of the curriculum change. Thousands of children have failed to receive the benefit of education to meet essential needs because of a few teachers' opposition, and sometimes not for reasons of educational aim, but rather for reasons of personal convenience.

Improvement of the programs from the kindergarten through high school must not wait for such individuals to retire or to become too weak to fight. Real growth in the status of our profession demands that we as individuals and groups study this serious matter and deal with it judiciously.

The real problem is one common to other professions, namely, dealing with the unfit. No one is reckless enough today to argue for dealing with the problem simply but directly—by dismissal. From most experiences it is correct to deduce that there is no *simple* dismissal. Unfair dismissals have created a widespread uneasiness and suspi-

cion. Sometimes a shift in professional responsibility, placing a person in a position where there can be a flow of constructive energy, makes a severance of professional ties unnecessary. However, when the problem is not one which can be solved by a shift or modification of work and all other sound approaches to the problem have failed, then the drastic solution must be resorted to. To dodge it or to defer it indefinitely, now a widespread practice, is to be guilty of unfitness too.

A policy established with due regard for all facts and relevant circumstances, including those subtle underlying pressures which may be the cause of destructive teacher behavior, worked out cooperatively by teachers, administrators, and supervisors with competent legal and medical counsel, then acted on intelligently, seems the only promising way out. This policy will probably be more successful if it is formulated before the need arises.

The preservice education of teachers is another highly significant problem of status—and one that shows satisfactory developments. The number of years of education beyond the high school is increasing. In addition, the assumption that years of preparation might vary in relation to the age of the pupil taught is being eradicated. Certification rules raising or establishing the qualifications of teachers are being made in several states.

During the war years, as the teacher shortage grew, many states and localities relaxed their standards, with the result that more than 100,000 temporary permits were issued to teachers not properly prepared to meet existing certification standards. Immediate return to previous and even higher standards and cancellation of temporary certificates of those still unable to meet the educational requirements seem imperative to avoid a loss in the educational level of the profession.

Greater interest in high standards for teachers will certainly be created if teachers share in determining them; and a real profession of teachers in a democracy should aid in determining conditions which are of such importance to their own professional status. Teachers seem to be sharing more frequently in these decisions, but the instances are so few as to be conspicuous.

All the foregoing should provoke greater interest in public affairs. Out of teacher activity in community committees dealing with local problems, political elections, and major national and international issues will come a new maturity that will develop the knowledge and perspective needed in curriculum development. The strengthening of our influence on national affairs will affect the public's attitude toward the importance of education to the nation's progress. A campaign such as was waged in the recent war years to help the public, and even the profession, to realize that education is an essential service in wartime will never have to be repeated.

Planning School Buildings

WILLIS A. WHITEHEAD

In the Educational Research Bulletin

AT the present time there is need for a large volume of school-building construction throughout the United States. The complete cessation of building during the second World War served to add to already existing deficiencies in the school plants of the nation. As partial evidence of the lack of adequate school-building facilities in the United States, a U. S. Office of Education report indicates that: first, the average school building in the country today does not contain the facilities that are necessary to meet the needs of children and youth in our time; second, there are still 121,177 (52.8 percent) one-room school buildings; third, more than a third of the buildings in 62.3 percent of the cities of 10,000 or more population are obsolescent from both an educational and structural standpoint.

It is a truism, of course, to state that the design of a school building should be dependent to a large extent on the kind of education to be carried on in the building. During the past thirty years educational philosophies and curriculums have undergone extensive changes. Concomitant with these shifts in educational thinking, it has become apparent that the planning of school buildings involves more than a consideration of minimum structural features and provisions for academic classrooms.

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Some of the major problems involved in planning modern school buildings are the following:

1. *Planning procedure.*—Philosophies and methods of planning, appointment of planning groups, and organization of procedure.

2. *Educational planning.*—Philosophy of education, age groups to be served, curriculum organization and time allotments, teaching methods and tentative curricular experiences, a tentative program of curricular activities for various age groups, community use of buildings and sizes of groups that need to be provided for, class sizes, school-enrolment estimates, administrative organization of the school program, and educational housing requirements.

3. *Site selection.*—Location, size, shape, relative elevations, soil and subsoil qualities, existing improvements, and necesssary preliminary and final improvements.

4. *Building design and site development.*—General building design and structural requirements, site-development requirements, building details, circulation features, rooms,

service systems, and selection and design of equipment.

5. *Budgeting of building funds.*—Total receipts; costs of bond issue, educational survey and consultants, site, selection of architectural service and provision for anticipated site difficulties, educational equipment, building contracts, architectural services, site development, etc.

6. *Selection of architects and specification of architectural services.*—Method of selecting architects, desirable personal and professional qualities of architects, drawings and specifications, construction supervision, engineering supervision, engineering services, and owner-architect relationships.

7. *Legal documents and relationships*—Advertisements, bids, architects' contracts, construction contracts, and contractors' bonds.

8. *Supervision of construction*—Organization, staff, and techniques.

9. *Evaluation of complete structure.*—Suitability to function, agreement with educational and architectural plans, agreement with the results of contemporary educational and technical research, and economy of construction and operation.

It should be obvious from the list of problems involved that the process of planning modern school buildings is complex and, in many of its phases, highly specialized. Members of boards of education and superintendents of schools are usually not familiar with many aspects of the whole planning and construction problem; neither do they have the time or opportunity to gain familiarity with them except in large cities where assistants and school-building divisions are part of the educational organization. Furthermore, although architects, engineers, and technical consultants are needed to solve the technical problems involved, educational specialists are needed to provide direction in both educational and technical matters if school buildings are to be designed and built to serve their major function.

In view of the facts that school-building planning and construction are complex problems, that increases in construction are both needed and assured, and that much anticipated construction will be carried on in districts where adequate school-building divisions are not a part of the educational organization, there is a need for educational consultants who are familiar with the major problems of planning and who are technically competent to advise and assist in carrying out school-building programs. Unless such services are available to the board of education and school officials, it seems likely that the anticipated construction program may result in more school buildings, and possibly more facilities, without the assurance that they will be planned in terms of their major functions. Such services are not available, at the present time, from the state departments of education in a majority of states. Consequently, local educational authorities must look for advice to educational specialists from colleges and universities.

Social Restrictions Placed on Women Teachers

MARY LICHLITER

In the School Review

WHEN the question of an occupational goal is under consideration, the invariable answer of women students is, in effect, "Anything but teaching." Harry Herlinger, as the result of a questionnaire dealing with why women did not like to enter the teaching profession, found that "social reasons" ranked third on the list of deterrents.

The present report is based on a questionnaire study designed to gather factual information on the specific social obligations and restrictions imposed on women teachers today in towns with populations of not more than 12,000. A frank facing of the actual needs and problems, the elimination of fears which may not be warranted, and the development of attitudes of objectivity within the student body of teacher-training classes might well undermine one of the reasons for the present acute teacher shortage.

On the basis of this limited sampling (a 48 percent response from 232 separate communities in 34 states) it is impossible to affirm that the lot of the woman teacher in small towns is unduly hard. The fact is that this situation varies from town to town. Communities, like individuals, follow the principle of "individual differences." The teacher-community relationship is in a state of flux, but the movement is in the right direction.

The sole reservation, that of delimiting the population, was based on the premise that only in smaller towns and cities can such obligations and restrictions be enforced.

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The random sampling provided a good cross section of age and population groups. More than half who responded were teaching in towns with populations under 3000; 23 percent in towns with populations below 1000; 32 percent in towns between 1000 and 3000. Most of the teachers were single. Ninety-seven percent were teaching in public schools. It would appear that living conditions were flexible, as more than half were able to live in their own homes and apartments—an arrangement which assures greater privacy and independence. The range of teaching experience extended from one year to five years. The fact that more than half of them had been teaching only between one and five years, however, makes it difficult to obtain a valid clue as to the effect of the war and the consequent teacher shortage on the results of the study.

The first section of the questionnaire dealt with the social obligations imposed on women teachers.

About a third of the group was expected to attend church; 10 percent were expected to attend Sunday School, and 9 percent were asked to teach in Sunday School; 10 percent were expected to take part in other church activities. This obligation was imposed, to a large extent, by general social pressure. Almost a third were expected to participate in community affairs, the source of this obligation being closely divided between advice by the schoolboard and social pressure. The extracurriculum activities, in which participation was demanded of 67 percent, were imposed almost entirely by contract or by advice of the administration.

In a number of instances, respondents felt that participation in community activities was of real help in their work, providing at the samt time an opportunity for social contacts. Whatever resentment was expressed seemed to be due solely to the fact that too much participation was demanded—and in too many diverse activities. This same attitude was also felt toward church activities.

Almost without exception those who resented the demands made on them by extracurriculum responsibilities did so because of the heavy burden these activities often imposed, because the burden was not equally divided, or because every teacher was required to attend every function. Many acknowledged, also, that the war had added greatly to the school and community responsibilities. Looking at the total picture, 61 percent of the communities represented by this questionnaire expected *nothing* in the way of church or community activities.

The second section was set up to find the extent to which women teachers are restricted in personal habits and activities. Teachers were asked to check each activity in terms of the general application to women teachers in the community, regardless of whether or not they desired to engage in the activity or whether they objected to it on a personal basis.

It would appear from this sampling that the restrictions actually imposed on women teachers in small towns are not so universal or extensive as is currently thought. Except for one instance in New England and another in the Middle Atlantic area, the reports showed no restrictions on the use of cosmetics. Dancing and card playing were forbidden only in isolated cases, as was spending the week end away from the community. Eleven percent of the respondents indicated they were forbidden to wear certain types of dress, but in most cases these are restrictions imposed by "taste" rather than by any wholesale condemnation of certain types of dress. In some communities the wearing of slacks, ankle socks, shorts, and leg make-up is forbidden to their teachers at all times.

"Dating" in general is wholly accepted by these communities. Fifty-three percent of the respondents, however, were expressly forbidden to "date" with students, and in

this situation the age differential would operate under any circumstances. Only 3 percent of the teachers objected to this restriction.

Fifty-five percent of the total respondents were forbidden to drink and 38 percent were forbidden to smoke. Comments showed these taboos to be not so much moral issues as matters of taste and suitability. The replies stressed particularly that in many communities smoking and drinking, even when forbidden in public, are tolerated in private. Of course the question of bias must be acknowledged in relation to attitudes expressed toward these two restrictions. Only 12 percent objected to the restriction on drinking, while 24 percent objected to that on smoking. In view of the large percentage of respondents who were not concerned or who favored these restrictions, it may be safe to assume that they did not care to indulge in either.

Fifteen percent were forbidden to marry while employed by the school, this restriction being placed largely by contract or oral agreement at the time of employment. This restriction was objected to by 76 percent of the respondents.

Data not reported show a general lack of restrictions in the West, the Middle Atlantic, and the East Central states. Twenty-seven percent of those replying lived in communities which placed absolutely no restrictions on their teachers, while 5 percent taught in communities where the only restriction forbade marriage while under contract. Three other items were added under "miscellaneous" as forbidden in certain communities: sick leave without a physician's permit; late hours; and participation in politics, especially in a minority party.

Thirty-four percent of the replies indicated that the war had occasioned a slackening of restrictions; only 1 percent, that there had been a tightening. The lessening of the restriction on married teachers was indicated as one of the most consistent evidences of a definite change.

Finally, an effort was made to discover whether these teachers felt that their colleges had given them adequate training for small-town teaching positions. There was found to be an amazing consensus concerning the needs which had not been met by the colleges. One major emphasis was repeated again and again—more of the practical, less theory. The second emphasis was on the social skills. Many seemed to feel that their college preparation had lacked training in group leadership and development in social graces. There should be greater stress on the value of skill in many phases of group leadership. Closely allied were other more personal needs—ability to express one's self, good speaking voice, good posture, and personality development.

Linked with the third emphasis, need for more knowledge of human relations, was the feeling that somewhere in their college courses teachers should have prepared them for small-town mores, for the gos-

sip and interest that center in the teacher in a community, and for the constant demands made on the teacher. If colleges did deal with the "facts" and, in practical courses in social psychology and rural sociology, showed how these same facts could be met, the bitterness and disillusionment might not be so great. Twenty percent of the teachers responding to this question paid tribute to their colleges for their adequate preparation.

Quite apart from this specific question concerning their college training, teachers were also asked to add any comments they desired. One of the most noticeable factors in these comments was their similarity in all localities, from Florida to Oregon. While individual communities differed from one another, individual reactions carried no regional flavor.

Another interesting aspect was the frequent assertion that the teacher's present community was "more liberal than many." Quite a number of respondents said they came from small towns and thus did not have any adjustment to make. One teacher felt that the younger teachers were doing a great deal to break down the barriers, as "social opinion didn't bother them as it did older teachers."

In those instances where the teachers faced considerable restrictions, the resentment was somewhat bitter, especially in communities in which teachers were restricted in habits permitted other employed women.

Other sources of irritation mentioned were: differentials in pay between men and women, more rapid promotion of men, politics in the school system, heavy teaching load, careless administration, and resentment against younger teachers by those older.

Here is the major emphasis of the entire study: the dividing line between those communities where teachers are treated as "human beings, are allowed to live a normal life and to be judges of their own conduct, and are credited with good sense enough to govern their own lives," and those where teachers are set apart as different from the townspeople, individuals who must always be the main source of gossip for the townspeople.

The major troubles which teachers face are the irritating intangibles, the subtle cold shoulder to the stranger, the small indignities committed against human beings by not treating them as fully and sensitively human. One is impressed by the fact that, while there is much to be done, there is a very definite process of change for the better. On the whole, this study reflects credit on the employing group. It is the community in general, expressing itself through social pressure, which is in need of drastic reformation in spirit and attitude.

Films and Textbooks

CHARLES F. HOBAN, JR.

In Educational Screen

THE growing interest of textbook publishers in the production of educational motion pictures brings into focus the general problem of the relationship of textbooks and films. Investigations currently being made by textbook publishers indicate that something will be done about the correlation between the two mediums. This thrusts on us the necessity for serious consideration of the functions of each and the relationship between them. It is not inconceivable that more harm than good may eventually develop out of the close combination of the two if this combination is effected on a narrow interpretation of the assumption that educational motion pictures are purely supplementary aids. The danger lies in the possibility that educational motion pictures will be produced not only within the present organization and arrangement of the textbook but also within its psychological framework.

There are at least four psychological characteristics of the textbook as it has grown up in America: (1) The textbook is impersonal. It is written in the third person, passive voice. In its impersonal factual presentation, the subject matter remains apart from the reader—a thing, an event, a name outside himself, not a part of him. (2) The textbook is a distillation of subject matter abstracted from the wealth of detail and supporting meaning of its original or present context. It deals only with the bare essence of the subject. (3) The textbook is intended for individual rather than for group study, and the reader is expected to adjust his abilities to the textbook by repeated reading of difficult, obscure, and condensed passages; by unhurried contemplation of the subject matter; or by plain "digging." The lower the student's reading and comprehension ability, the more times he will read the textbook passages. (4) The textbook is generally written by someone who is known either as an authority on the subject or on teaching the subject. Occasionally the ability to write clearly, fluently, and interestingly is found in a person of pronounced scholarship or teaching craftsmanship, but somehow such people avoid writing textbooks. As a result, textbooks are poor reading.

Educational motion pictures should have exactly the opposite characteristics. In analyzing the functions of motion pictures in education, however, we have failed to

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analyze the kinds of things that should be recorded by the camera. We have thought of the functions of motion pictures in terms of (1) motion, (2) slow motion, (3) fast motion, and (4) animation. We were wrong. These functions are peculiar to the motion-picture camera. We can employ every one of the enumerated functions and come out with a motion picture that differs from a textbook only in the form of communication.

Mark A. May has set forth a different analysis of the functions of motion pictures in education. His analysis deals with the subjects that motion pictures cover and with the known psychological effects that well-constructed motion pictures have on their audiences. Using this analysis as a point of departure, we can readily see that motion pictures which influence the development of values, appreciations, attitudes, and habits of conduct are motion pictures characterized by personal meaning and appeal, by a wealth of detail and breadth of context, by full and unhurried treatment, spiced with interest and tinged with feeling and emotion. These motion pictures can and should correlate with textbooks, but they do so by rounding out and filling in the kinds of experiences that make learning richer and more meaningful.

Motion pictures should, wherever possible, be made personal. Investigations of children's responses to educational motions pictures indicate that the responses are warm and favorable when there are characters in the film of their own sex, close to their own age, and close to their own economic and cultural status. For another thing, children expect the characters in the film to talk in the film. Even when dialogue cannot be used, the commentary can and should be made more informal—more in the language of the audience instead of the language of the adult speaking through the textbook.

Second, films should reflect the details and context of the subject. It is the business of the film to show—not to conclude, to summarize, or to interpret. Nothing is less satisfying psychologically than to have the picture whisked off the screeen while the commentator disposes of the scene with the deadly finality of a one-sentence generalization. The summing up is the function of the audience, under teacher direction. The pictures can be verified against the textbook, or, more appropriately, the generalizations and interpretations of the textbook can be verified against the film.

Third, educational films, unlike textbooks, should be leisurely. When two educational films on the same subject are available, the longer, more leisurely is more widely used than the shorter, condensed version. To most children an educational motion picture is more of an emotional than an intellectual experience. Intellectual activity comes after the film experience—in the discussion and analysis of the material presented in the film

and from the study of the textbook in the light of the experiences supplied through the film. Furthermore, while it is often desirable and enjoyable to show an educational film twice or more to the same audience, it is a mistake to produce educational films that must be shown twice or more to compensate for overcondensation of subject matter or for the extremely brief time which the scenes remain on the screen for audience observation. The principle of repeated showing is a textbook principle inapplicable in the main to educational motion pictures.

As the fourth counterpoint of the textbook and the film, it is almost axiomatic that educational motion pictures should be produced by professional film producers. Both subject-matter specialists and specialists in teaching are indispensable —but their service is in the initial planning, the technical supervision, and the final approval for accuracy and teachability—not in the professional end of picture making. The translation of subject matter and teaching method into an educational motion picture is the job of the professional film producer. Professional motion-picture talent adds to the presentation a craftsmanship which captures and holds the undivided interest of the audience; gives life to the subject; and increases the motivation, the impact on attitudes and habits, and the enduring nature of the learning for which motion pictures are famous as a medium of both education and entertainment.

Considered in the light of these criterions, motion pictures become basic educational materials, not merely supplementary aids which illustrate the textbook. They supply basic experience and learning. The textbook supplies the material by which this experience and learning are intellectualized and integrated.

Most of what has been said has been put to the test on a broad scale in the training programs of the armed forces. In the early days of the program, both the Army and Navy made films which were little more than motion-picture versions of their textbooks, with a paragraph-by-paragraph correlation. As the training program progressed there was a marked change in the nature of both the films and the books. While both the film and the book covered the same subject matter, they took entirely different approaches and used entirely different treatments. The textbook became the pocket reference book which supplied the essential data. The film became the human document which gave life and meaning to these data. They were made and used as a team working together toward the same goal. Neither tried to duplicate the other.

To screen the 163,000 feet of film made of the United Nations Conference in San Francisco would require 30 hours continuous running time.

American Education's Debt to Pestalozzi

WILLIAM HEARD KILPATRICK

In the Journal of the NEA

FOR some 2000 years before the day of Pestalozzi the actual process of teaching had changed but little. The underlying principle, developed in Ptolemaic Alexandria in the third century B.C. and still supreme in Pestalozzi's day, held that the school existed to teach the written word. In practice, pupils memorized words to be understood only later, if ever; and teachers flogged unmercifully. The common result in pupils was frustration of spirit, confusion of mind, and hatred of teacher and school. One factor to encourage this cruel treatment was the then prevailing doctrine of "total depravity," by which pupils were deemed innately bad and averse to learning. This was the situation against which this great, honest, queer genius, Johann Heinrich Pestalozzi, revolted.

Pestalozzi had read the *Emile* of Rousseau and accepted its doctrine that innate nature is good. He was moved, too, by the current revolutionary regard for the common man. Thinking it all over, he developed the three main doctrines of his position—the education of the common people; the kindly treatment of children; and his own psychology of child nature and of learning.

First, Pestalozzi saw the education of the child as symbolized by the growth of a seed into a tree. "A little seed . . . contains the design of the tree." So with the child and the man, and "the educator only takes care that no untoward influence shall disturb nature's march of developments." Thus Pestalozzi built on the child and his interests and his natural activities. It was on this basis that Froebel founded his kindergarten.

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Out of the unfolding from within, Pestalozzi got his further doctrine of the all-round development of the child's natural resources, an anticipation of what we now call "the whole child." In addition to the customary reading, writing, and arithmetic, Pestalozzi's children engaged in singing, drawing, gardening, natural history, "mental" arithmetic, geography, etc.

Pestalozzi's fundamental principle of method was his "sense perception," often later called "the inductive method." Anything, or any relationship among things, must be seen and accepted by the pupil before its name was to be given by the teacher. His followers developed this idea into the now familiar rules—from known to unknown, from concrete to abstract.

Along with all the preceding went oral presentation (vs. merely memorizing books), pupil interest (vs. prizes, competition, whipping), the word method of teaching reading (vs. the alphabet method), "mental" arithmetic (understanding vs. merely following rules), and the professional training of teachers.

First to follow Pestalozzi was Fellenburg in his manual-labor school in Hofwyl. The manual-labor feature of this popular school was repeated in many American colleges, in fact, in all those organized in the 1830's; but the plan failed in America and was soon dropped. After the defeat of Germany at Jena in 1806, Fichte roused the German people to education as the means of recovery, and he declared Pestalozzi's method the only suitable one to use. Various states accordingly sent student-teachers to study under Pestalozzi. These students returned to make the Prussian elementary schools and normal schools the most famous in the world. After the revolt of the Germans against Frederick William IV, however, the king ordered the normal schools purged of all their liberal teachings and methods. With reaction thus in control, the nation took the road that led to the wars of 1864, 1871, 1914, and 1939.

How did Pestalozzi's influence come to America? Many visitors, beginning early in the nineteenth century, saw Pestalozzi himself and told the story. Pestalozzian teachers from Switzerland came to America to teach. Most influential, perhaps, were reports on the Pestalozzian-built elementary and normal schools of Prussia. Victor Cousin, Calvin Stowe, Horace Mann, and others brought back detailed accounts. Henry Barnard had powerful influence through his *American Journal of Education* otherwise to spread Pestalozzianism. Warren Colburn published his *First Lessons in Arithmetic,* "on the plan of Pestalozzi, with some improvements." This, with other books in the same vein, introduced "mental" arithmetic into the American schools and in the end remade arithmetic teaching throughout the country. Lowell Mason, called "the Pestalozzian music teacher," made music a permanent feature of American schools. E. A. Sheldon's Oswego Normal School started the "Oswego movement," a kind of second-generation Pestalozzianism which had wide influence in improving American education.

When we consider what Pestalozzi opposed in Europe, we see that much the same condition then prevailed in this country. True enough, New England had free public schools, but the other states did not have any thoroughgoing systems until after 1840. So it seems highly probable that the success of the Prussian elementary school as reported in America had real effect in spreading free education in this country. The other evil conditions, the cruel whippings and the memorizing of what pupils did not understand, certainly held in this country.

Probably most of the improve-

ments in teaching and school management in this country during the nineteenth century we owe to European suggestion and thus to Pestalozzi. Froebel never did affect teaching above the kindergarten. Herbart and the Herbartians must be given credit for many of the changes after 1890. But here again the credit for most of the advances during the century goes to Pestalozzi.

What these advantages were we have already seen; minimizing of whipping and other cruel punishments; the great lessening of rote memory; the introduction into the schools of music, drawing, history, geography (in its present sense), science, nature study; the improvement of teaching; the professional preparation of teachers. These advances constitute, then, the chief contributions of Pestalozzi to us.

It will surprise some to see that, in spite of the crudeness of Pestalozzi's statements, his preparation for our current modern biological, social, and independently moral conception of teaching was appreciably better than Froebel's or Herbart's. Herbart made us conscious of the doctrine of interest as Pestalozzi did not; but his building of interests independently of biological beginnings we must reject.

So far, then, as the nineteenth century remade American education, Pestalozzi deserves most credit; and what he did likewise best prepared us for the twentieth century. As the years come and go, however, it will be the great loving heart of Pestalozzi that stands out. He loved his children and they responded to his love. Men saw this and heeded. School children have been happier ever since; and besides that, they have learned better. This is the debt we owe Pestalozzi.

The Beginning of Pestallozianism

ALTHOUGH famous only in limited circles, Johann Heinrich Pestalozzi might well be called "the father of modern education." His first educational venture, a farm at Neuhof, involved 20 underprivileged children on whom he lavished every care and affection. The students themselves supported the school — the boys by farming and the girls by looking after the household chores. All learned to weave and spin. Meanwhile Pestalozzi talked to them or read to them, and within a few months, all of these pupils were improved mentally, physically, and morally. They had, furthermore, learned the rudiments of a trade and had acquired some knowledge and attitudes from their mentor. Despite the failure of the school for financial reasons, Pestalozzi had proved that poor and needy children could learn and he had commenced experimentation on his sense-perception theory. The idea of the manual-training school was launched.

How to Recognize Psychoneurotic Pupils

GULIELMA F. ALSOP

In the Clearing House

A VETERAN who has returned to the education field asks what school teachers can do to prevent mental breakdowns among their pupils in later life. Psychology and psychiatry are engaged with this problem, and inevitably some of this knowledge must be made available to parents and teachers. It is in its incipiency that mental trouble should be diagnosed and treated; therefore, some ways of helping teachers to recognize potential mental cases must become universal and simple. Personality types should not be cloaked in any of the new, high-sounding names which are fit only for psychiatrists and will emerge in a clinic. It is necessary to realize that unstable personalities are not a new creation of the machine age. In the schoolroom the difficult children are the unstable personalities, and it is as the difficult children that the teacher should recognize them and see that they receive the modern form of treatment.

A very workable classification used by the Riggs School of Psychiatry in Stockbridge, Massachusetts, divides people into three broad classes:

1. The adequate—those bound to succeed.

2. Those adequate in a good environment but inadequate in a hostile environment.

3. The inadequate—those always needing a conditioned environment.

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Classes 1 and 3 are usually easily identified. Cases in class 3 need a doctor at once. Class 2 is the one in which most of the borderline cases are found, and for this group much can be done in the school. Although the taking of a very careful family history is distinctly a medical problem that can be carried out only in properly staffed schools, the diagnosis of inadequacy can be begun in a lay fashion through observation in the classroom and selection of pupils for further observation and care. The causes of inadequacy are: first, inheritance; and second, a hostile environment —a hostile home setup, including the attitudes of both parents and siblings, poor nutrition, and misfortune.

A full assay of personality traits for each child can be made by a school nurse if she uses some definite textbook (such as *Personality and Mental Illness,* by John Bowlby. New York: Emerson Book Co., 1942, pp. 35-42) for the classification. The busy teacher, however, must follow a much more simplified plan. I would suggest that

ten traits of deviation from the norm, as follows, be arbitrarily selected:

1. The noisy, overexcitable, pugnacious child.
2. The angel child who never makes any trouble.
3. The sleepy child who puts his head down on his desk and falls asleep.
4. The liar.
5. The thief.
6. The sullen child.
7. The child with obvious neurotic traits, such as: biting fingernails; grimacing; eye twitching; mouth activity; excretory activity; crying; giggling; sniffling; throat clearing; fidgeting; making contortions.
8. The moody, variable child who is now gay and now depressed.
9. The cruel and malicious child.
10. The cowardly child.

Some school technique for the use of the classification must be adopted. For example, if three teachers check the same trait for an individual, the trait should be listed on the pupil's personality card; if the trait appears on the same card for a given length of time, then the pupil concerned should be reported to whomever takes charge of personality affairs. No pupil should be definitely labeled as deviating from normal on the evidence of one person and without a period of observation, as many pupils exhibit nervousness under stress of newness and settle down fairly well later.

In the case of the angel child, the sleepy child, the sullen child, the moody child, or the child with obvious neurotic traits, medical care is needed. No amount of change in environment or of social or psychological understanding will return the child to normal.

The other marked deviations, as they are often inherited and deep-seated personality difficulties, are harder to handle. Often all the resources of the school, family, or community must be brought into play to prevent overt mental disease from setting in. And, not even with the earliest of diagnosis and the best of social adjustment and the most skilled psychological training can everyone be made normal. That great question of the future, the begetting and rearing of a normal race, the question of eugenics, still lies before us uncharted. But not in any other way can complete adequacy be obtained.

Dick, a thin, rather quiet boy of nine in a class of more vigorous boys, was reported as never coming back after lunch, complaining of indigestion. It was found that the other boys teased Dick during the lunch recess.

Old method of treatment.—Punish the other boys for teasing Dick and Dick for running away from school, thus intensifying the situation and making Dick the acknowledged butt of all the boys.

New method of treatment.—Dick was examined by the doctor and found to have large, obstructing adenoids, which were removed. No issue was made of his indigestion. Dick was allowed to stay at home until the next term. His nutrition improved greatly; he became sturdy and selfreliant and was quite able to hold his own with the other boys.

Advantage of new method.—Dick was never stigmatized as timid, cowardly, or neurotic, nor did the other boys band together into a gang to fight him.

A totally different type is the "an-

gel child," who is generally well liked, cheerful, and never complains. Her grandmother says, "Jane is too good to be true." And such remarks are often accurate, for this child is a special glandular type which possesses a persistent thymus gland and is peculiarly delicate physically, needing protection as well as glandular treatment. This protection will constitute her conditioned environment and the child will have an opportunity to outgrow the peculiar glandular combination.

The opposite extreme is the overactive, very excitable child. The basic thing about this type is that they have too much energy which, when unguided, often finds antisocial outlets. They become problems because of social difficulties rather than because of inherent personality difficulties. Alfred Jones was of that type.

Alfred was not told to "pipe down" all the time, but was made captain of the baseball team, was put in charge of school sanitation, and slowly, as the year went by, his excess energy was turned into socially acceptable channels. He was made to see that his energy was an enormous asset that should be used like a tractor for the day's work and that the prominence which he gained by his bad behavior could be more permanently gained by taking responsibility. The old treatment would have stigmatized Alfred as the Bad Boy, thus increasing his tendency to become the stage character.

Margaret Jennings was a small, timid wiggler who bit her fingernails and washed her hands constantly. She had no friends and took no part in the class projects. A simple means of treatment, namely, that of leading the child into normal activity, was followed. First Margaret's parents were seen by the social worker, who prescribed hours of sleep and daytime rest. Margaret's diet was supplemented with more milk, eggs, and fresh vegetables. Her mother bought her two new dresses and a little chain with a heart that Margaret could hold in her fingers and play with. An older girl in the class took Margaret under her wing, sitting beside her in class and keeping her diverted. When the Christmas productions came around, Margaret was one of the angels. Everyone admired her.

By springtime the problems had vanished, although no one tried to learn or understand their subconscious cause which, without doubt, was some feeling of guilt. finding more congenial types of ac- to her classmates, Margaret subconsciously decided her guilt could not be deserved and dropped her ritualistic, compulsive hand washing and her fingernail biting on finding more congenital types of activity. She was never told, "Don't bite your fingernails. Stop washing your hands so often." Her faults and deficiencies were in no way fastened to her.

I once heard a psychiatrist say, "I can cure everyone but the congenital liar." That was a most un-

fair statement, for congenital liars are absolutely essential to civilization. These people use their imaginations in two different ways: one, to produce pure fabrication for the delight of fabrication; and, second, to get out of trouble. The cowardly child tries to lie out of a difficulty, and his treatment should be training in manhood and bravery.

But the imaginative liar is the one who tells the impossible stories that children like to listen to but soon come to disbelieve. Harry, whose father was a street cleaner, came to school one morning and spread a tale that his father had a new Packard car. His tales grew more and more fantastic.

These children, unless shown how to use their talents, are ostracized and sometimes become antisocial. As they learn what a power their imagination is, they use it as a sword to stab their associates. Often they become malicious and gloating and cruel through the trouble they make by their lying.

Harry, however, was handled by a most imaginative teacher, who told him he possessed a quality the other children did not possess, a quality that would make him a writer. She set him to tasks of writing and read his stories to the class. Harry gained more prominence and attention by using his imagination as it should be used, for entertainment and diversion, than he had by substituting imagination for reality. When the right time came, the teacher explained to him these two realms of existence, imagination and reality, and told him one was for everyday social living and the other for entertainment. Harry was saved from the stigma of liar.

Some of the most difficult cases, the thief and the coward, are left. They usually belong to the class of have-nots. A girl who steals other girls' hair ribbons would have new hair ribbons of her own. The cowardly boy or girl would have fear acknowledged as a natural element in the human make-up. The emphasis should be put on the power of attainment in spite of fear.

In all these approaches to the everpresent problem of human inadequacy, the emphasis is on providing a normal form of activity in which the child will attain the normal goals and on the avoidance of adding to the child's sense of frustration and anxiety by branding him with deficiencies. Not all children can be cured or saved, but many can be given a good steer in the right direction.

During the past two years, educational institutions in the East, Middle East, and Africa have received libraries of some 250 volumes as part of the State Department's Cultural Exchange Program. These schools, in turn, are urged to send to American libraries books concerning their lands.

Shall the Junior Colleges Share in Smith-Hughes Funds?

FRED J. KELLY

In Higher Education

THE term vocational education applies to all levels of education; it means education designed to prepare a person for his vocation. Among some people, however, "vocational education" has come to mean primarily that education which prepares for callings characterized essentially by skill in manipulative performance. "Professional education" is applied to the preparation, on the college-degree level, for those callings based on a broad foundation of knowledge. Actually there is no sharp distinction between these two groups of vocations.

There is a borderline band of occupations, to which the terms semi-professional and technical are applied, which fall between the predominantly manipulative and the predominantly professional. The educational programs set up to prepare for them contain elements of basic mathematics, science, or art as intrinsic parts of the training curriculum. These courses are not needed to the same extent in programs labeled vocational education, nor are they extensive enough generally to serve professional education. The laboratory technician provides an example of these intermediate occupations. He must be trained by a curriculum which contains essential elements of basic science of collegiate standard.

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The Smith-Hughes Act, which subsidizes certain types of vocational education, imposes limitations on the program by use of the phrase "of less than college grade" in describing the vocational education thus subsidized. Judged by the report of the Commission on National Aid to Vocational Aid, whose report was largely responsible for the provisions, it was intended that the program thus subsidized should be carried on in general by the high schools of the country. The Commission stressed particularly the fact that there was already provision for vocational education of college grade in the land-grant colleges organized under the Morrill Act.

Since 1917, however, some of the leaders in the field of vocational education have come to interpret "of less than college grade" more and more broadly. Attention is called to the U. S. Office of Education report entitled *Vocational-Technical Training for Industrial Occupations,* which includes this sentence in recommendation No. 7:

"Although some excellent training of vocational-technical type is now being provided in technical high schools, a trend appears to be toward the posthigh-school years." There is before the Senate a bill, S. 619, sponsored by the American Vocational Association, "To provide vocational education and retraining" supplementary to the Smith-Hughes funds. This bill uses the phrase "on a posthigh-school level of less than college grade."

This phrase can mean only one thing. The institutions referred to are above the high school but are institutions the terminal curriculums of which do not lead to a degree. It is clear that in the view of the American Vocational Association the vocational education which comes within the provisions of the Smith-Hughes Act may include all vocational education except the professional. This definition is admittedly beyond what was intended when the phrase "of less than college grade" was inserted in the Smith-Hughes Act. This is not necessarily objectionable. Maybe the Smith-Hughes Act should subsidize vocational courses in junior colleges. The policy merits careful examination.

It is obvious that greater emphasis needs to be put on vocational education done in posthigh-school institutions. The question is—and to me this seems to be of basic importance — under what auspices should the states develop this much needed vocational education? Where shall the line be drawn that separates "college" from the level of education below it?

If the states by and large had a unified system of education the question would not be so important. In only four states, however, do all the colleges and universities, even the publicly controlled ones, come under the same board that has charge of elementary and secondary schools. The Smith-Hughes Act is administered by state agencies authorized to do so, usually the state board of education. Should the semiprofessional, technical, and vocational-training programs of the junior college become a part of the federally subsidized vocational-education program?

First, those arguments in support of making college courses, below the professional level but "terminal" in character, a part of the Smith-Hughes program:

1. Many local school systems are extending their programs through grades 13 and 14. Where that is the case the close correlation of the high-school and junior-college programs is natural and relatively easy.

2. With the rapid increase in the proportion of the country's young people who graduate from high school, it is inevitable that increasing numbers should postpone their specialized vocational training till they enter posthigh-school institutions. This adds to the difficulty of placing training for the skilled trades under one jurisdiction and training for the semiprofessions under another.

3. Any development which tends

to perpetuate a dual control of education within a state is open to serious question. Education is a continuous process, and in theory the state department of education ought to have all levels of education under its purview.

Let us now state some of the arguments against incorporating the college vocational courses into the Smith-Hughes program:

1. A break in the school program at about the age of 18 serves the needs of many youth. It is not here contended that there is an abrupt break in adolescent development at 18 or any other specified age, but that a gradual change takes place in all typical youth which moves them from a home-centered to an ever widening community interest. If the principal distinction between secondary education and collegiate education is in the extent to which the greater maturity of college youth is recognized in college, then it may prove very significant to keep the dividing line between high school and college at the age when the change is most marked. Young people who are taking semiprofessional courses must be allowed a "college experience" as vital as that of any other student.

2. Many of the jobs for which posthigh-school vocational education prepares are intimately related to the professional services in corresponding fields. The semiprofessional training programs set up for them must be closely associated with the professional schools.

3. There is great uncertainty in the minds of many concerning the standards of posthigh-school work that would be likely to follow its transfer to existing state boards created to administer programs of less than college grade. Such boards in many states do not have the authority to deal with higher education; their personnel has not been selected for that purpose; and they exist in states in which there are other boards responsible for higher education.

With these and other arguments in mind, what suggestions can be offered as to the best procedure?

1. There seems to be no good reason for limiting federal funds to vocational courses of less than college grade.

2. There are some states in which the best interests of both programs —college and less than college grade—would be served if the state department as now constituted had responsibility for both. There are other states in which marked official changes would be needed in the responsibilities of both the department of education and the board of higher education.

3. There are some states with a single board of education with jurisdiction over all publicly controlled colleges. Such a board might well be entrusted with administration of federal funds. In other states it would seem quite appropriate for the governing board of the land-grant college or the university to administer federal funds for vocational education of less than college grade.

4. I suspect that there are states in which no existing agency is well prepared to take responsibility for the development of a statewide program of vocational education of college grade.

It seems clear that vocational education of college grade cannot legally be incorporated into the Smith-Hughes program unless the law is amended so that it clearly applies. Many states would then no doubt modify existing legislation to meet the situation.

Current Quotations:

Howard A. Dawson, Rural Education Service of the National Education Association: "The major purpose of education for rural children and youth is not the mere imparting of literacy and a regimen of certain essential knowledge and information; it is to achieve and sustain a desirable level of cultural, ethical and economic living."

Clement Attlee, British Prime Minister: "In our atlases that show the division of land and water, of the countries and states, there should be a blank page to represent the air, to make our children realize that these old and historic divisions do not exist in the element in which men now move."

Henry Ford: "If we can afford war, we can afford education. If we can spend billions on war, we can spend millions that will give American children their birthright—good health and useful education. To those who say that we cannot do both, I say we cannot do one without the other! . . . Whatever else we do, let us not stint our children. Education is NOT a luxury—it is our great necessity."

Louis Adamic, author: "The pattern of the United States is not Anglo-Saxon with a motley addition of darns and patches. The pattern of America is all of a piece; it is a blend of culture from many lands, woven of threads from the many corners of the world. Diversity itself is the pattern, is the stuff and color of fabric. . . .

"There is need of scores of books—children's books, textbooks, general books—written with this idea, and as soon as possible; books addressed to the general public which will not deal with the American ethnic situation as a troublesome problem, but will tell the story of our 400-year immigration and will glory in our diversity."

Why Pupils Leave School

In the Kansas City Schools

DROP-OUTS have long been a concern of educators — not only for what they may lack in preparation for wage-earning and citizenship—but also because of the problems they create while in school. To find out just what some of these drop-outs think about education, George Melcher, superintendent emeritus of the Kansas City, Missouri, schools, sent questionnaires to 384 persons (242 boys, 142 girls) who left three Kansas City schools in 1943-1944 and failed to return in September of 1944. Adequate data were received from 119. Although the proportion responding is rather small for such a study, the fact that replies from the three different school groups were so nearly identical in content is taken to mean that the answers have a good deal of reliability.

What are these young people doing a year or more after they dropped out of school? Are they making a dismal failure of getting along in the world?

"A further evidence of the success of these young people on their jobs is in their successfully holding their jobs and in their advances in salaries," Mr. Melcher's report states. "Three-fourths of them have had only one or two jobs since leaving school—a very good record. One-fourth of the boys began work at $30 or more per week; one-half at $24 or more per week; and three-fourths at $15 or more per week. One-fourth of the girls began at $20 or more per week; one-half at $18 or more per week; and three-fourths at $15 or more per week."

Reported from the Kansas City Schools, *III (December, 1945), 1, 4-5.*

Most of the students had been working 12 to 15 months. The boys had increased their wages about one-third on the average and the girls had increased their weekly wages by almost 50 percent on the average. Among the boys we find four with a final wage above $50, as follows: a machinist, $75 per week; a musician in a band, $65 a week; a carpenter, $56 per week; and a precision grinder, $52.50. Three girls in clerical work received over $40 a week.

Such high salaries as the above are abnormal and could not, of course, be received as regular peacetime wages. Nevertheless, they do show that these young people are succeeding.

Not only were these young people working but most of them were happy in their work. Given as reasons were such things as promotions, pay increases, and increased responsibilities and opportunities. Some mentioned that they liked mechanical work. Twenty percent of the girls mentioned that they liked meeting people. Evidently the schools had at some time made a

real contribution to these young people. Twenty percent of the boys and 15 percent of the girls said that one thing they liked particularly about their work was "a chance to learn."

These same boys and girls had run away from a chance to learn in the schoolroom. Why? What were the reasons for leaving school—not the reasons offered at the time of leaving—but given a year or more later without any pressure?

Of the boys, 24 left on account of the war. Thirteen left on account of poor health. Fifteen attributed their withdrawals directly to the teachers or the school administration with such statements as "disliked the teacher or teachers," "critical teachers," "false reason for failure," etc. Twenty-five made such statements as "couldn't like school," "discouraged," "didn't seem to belong," "didn't know the value of high school." Is it not possible that the teacher, the method of teaching, and the organization of teaching materials had much to do with this 25? Twenty left school to go to work. Various other reasons cited were: needed in the home to help with the work; students were snobbish and unfriendly; home problems, etc. In some there is an element of frustration and a lack of adjustment, showing clearly a need for more helpful guidance.

Those who left for military service, on account of poor health, and in order to get married are not the responsibility of the school. The 73 who left because of dislike of teachers, failing grades, and dislike of school are the responsibility of the school. Smaller classes, more counseling, better teaching techniques and teachers would probably have saved from failure and withdrawal from school the major portion of these 73 pupils.

"In what elementary-school grades and in what high-school year do pupils form a dislike for school?" Of those answering this question, all except one of the 88 who attended kindergarten liked it. All liked the first and second grades. Of the 119, 37 had never at any time disliked school.

Twenty pupils of the 80 who formed a dislike for school did so in the upper elementary grades (5, 6, and 7); 40 formed that dislike in the first and second years of high school. These years seem to need special attention. "Children in the primary grades like to play school, children in the upper grades like to play hookey" seems to be borne out by these figures.

"What are the main causes of this dislike of school?" The answers to this question indicate that there are two main causes—the teachers and the studies.

History was named 16 times; English, 12 times; and mathematics 10 times as the subject causing the most dislike. The analysis of the various answers relating to dislike of school, dislike of subjects, and ways in which the school can be more helpful points unmistakably to the teacher as the major factor in determining the pupil's like or dis-

like of both school and subjects and in causing his withdrawal from school.

Less than half of the 80 who reported a dislike for school said that they were very unhappy while attending school. There must have been many pleasurable experiences offsetting the unpleasant.

Most of the parents of the children who dropped school wanted their sons and daughters to finish school, even though only 25 percent of the parents had themselves graduated from high school. Evidence also indicates that the drop-outs were not seriously deficient in the amount of homework done. And they also participated in extracurricular activities just about as much as other pupils.

"What subjects were best liked and least liked?" English ranked first as the best liked subject and second as the least liked. Science ranked second as the best liked and third as least liked. Mathematics ranked third as best liked and fourth as least popular. History was mentioned sixth as best liked and first as least liked. History was mentioned as disliked by the girls twice as often as by the boys. History is the thrilling story of man's progress from savagery to civilization, from bondage to freedom. Why do pupils dislike it? Is it possible that we have buried the real history of the progress of mankind under loads of boresome, irrelevant, nonessential details? Why is it that the subjects we use every day are disliked by large numbers of pupils?

After reading the severe criticisms that these young people made of their teachers, their studies, the school methods, and the school system, one would expect them to place a relatively low value on school training. Believe it or not, quite the opposite is true. In spite of the fact that these 119 pupils left school before graduation, 107 of them would advise boys and girls to finish high school and 102 say a full four-year course would have been beneficial to them.

These drop-outs thought the schools could be more helpful (1) by employing younger and better teachers; (2) by eliminating old and cranky teachers, and partial teachers; (3) by using better and more modern methods; (4) by doing more guidance work; (5) by teaching selfreliance and placing responsibility on pupils; (6) by omitting useless material and making courses more practical; (7) by helping pupils get acquainted and teaching them how to make friends; (8) by more thorough work and more review; (9) by using textbooks more and library less; (10) by making work easier and giving less homework.

No complaint of the scholarship of the high-school staff is made.

BELGIUM lost 361 of her schools during the war, and 700 moe were badly damaged.

Reading in Relation to Spelling

ARTHUR I. GATES

In Teachers' Service Bulletin in Reading

THE relationship of reading and spelling is very close. What a pupil learns in one activity or subject vitally affects what he acquires in the other.

Both subjects are much better taught than they were 25 years ago. A notable improvement lies in the greatly increased emphasis on understanding the whole content and substance of what is written (spelled) or read and on the development of clear concepts of the words. Getting the thought is put foremost in reading, and refinement of word concepts is a vital part of the program. Therefore, extensive reading-vocabulary studies have been conducted to find the best words for each grade. Similar studies have been made in spelling, but the inadequacy of the data is made painfully evident by Betts' compilation of the words in 17 spellers in 1940. Although the average number of words in a series of spellers for the first eight grades was 3763, there were 8645 different words in the series. Only 6.25 percent of the words appeared in all the spellers and, astonishing as it may seem, *only one word* was placed in the same grade by all 17. Authors of spellers compiled their lists from all sorts of combinations of adults' and children's lists. The situation in reading is much better.

An extensive study by Rinsland, which is shortly to be published, provides a list that excels all others. Based on over six million running words in representative natural writings of more than 10,000 children in grades one to eight in all sections of the United States and broken down into frequencies of use in each grade separately, this list provides for the first time a sound basis for a spelling curriculum. The data, especially the count of frequencies of every meaning of every word, grade by grade, will be of value for the reading program also.

Twenty-five years ago the spellers consisted chiefly of a list of about 4000 words which were "just studied," one by one, with little attention to developing word meanings or usages in the context. It is now recognized that learning to spell bare word forms is hard nonsense drill—the most difficult type of learning known. Meanings are as important in spelling as in reading. The spelling program shares with the reading program the task of giving words vitality and meaning and providing a course of experi-

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ences in word-meaning enrichment by means of definitions; illustrative sentences; exercises on synonyms, antonyms, and homonyms; and other devices long employed in reading. The spelling program has some advantages for developing many generalizations and conventions of English, such as the processes of converting base forms into derived forms and vice versa, and the significance of prefixes, suffixes, etc.

Dr. Lazar has found evidence that a major cause of lack of interest in reading is too much "stopping and studying" of words and usages. Spelling, on the other hand, is given much greater interest by embodying in it the wide variety of meaningful activities provided in a word-enrichment program than when it is confined to mere spelling drill. Such work is more natural to spelling, whereas in reading it seems an artificial interruption and interference. The suggestion is, then: Let many techniques be mainly *developed* in spelling and *applied* or used in reading.

Special care must be exercised to see that the techniques taught in one subject are in harmony with those taught in the other. For example, children who are taught reading in grades one and two by a practically pure "look-and-say" method without help in word analysis and who are taught at the same time to spell by looking at the word and then saying, and later writing the letters one after another are very likely, when they encounter unfamiliar words in reading, to employ the spelling technique. This is so restricted and detailed an attack that pupils are handicapped in learning to recognize words, especially long ones. The word-analysis and generalization program should comprise a unified pattern for both reading and spelling, with a well-conceived specialization of emphasis free of conflict in the two subjects. A child who utilizes various devices intelligently adapted to different needs will learn to spell and will review his spelling when he reads, and he will increase his competence in word recognition and analysis when he spells. Hence diagnosis of the pupil's techniques in one subject is essential to the understanding and correction of his difficulty in the other.

This is true of word-meaning development as well as of word-form and word-sound analysis. Before children learn to read visible words they have had years of experience in interpreting audible words and have become expert in figuring out the meaning of what others say to them even when the statements contain some words they do not know. It is, on the whole, fortunate that pupils tend to carry this habit over and try to get the meaning of the whole passage in reading without being hung up too frequently on particular words. But too many children become "word jumpers" too pronouncedly and need to give some definite study to the meaning of words. If the spelling lesson contains some reading matter similar to that found in

readers, in which the meanings of certain words are emphasized, a provision is made to carry over to all reading the meaning-getting techniques developed in the more exacting study of spelling. Here again, there is much to be gained from a joint reading and spelling program in word-meaning enrichment in which there is coordination and specialization.

Much of the activity in learning to use the dictionary, too, belongs logically to the spelling program. When one is writing, one is more likely to *want* information about capitalization, punctuation, abbreviations, contractions, etc., than when one is reading. In reading, one needs merely to recognize such items, whereas in writing one must recall them—a much more difficult act. A pupil may correctly read and understand bird's and birds' hundreds of times but be unable to recall where the apostrophe should be placed when he wants to write the plural form. The need to know becomes more acute when he wants to write the word in a letter or other composition. Hence, the spelling program should provide an even more extensive program in the use of the dictionary. Here again the teaching of both subjects should be coordinated and integrated.

The function of the spelling lesson is to enable the pupil to learn promptly how to spell a word he is likely to want to write in a letter or a composition at that time or soon. The spelling of the word should be kept alive by being written thereafter in the pupil's compositions. If it is not, either the word was introduced at an inopportune time (as, from the data above, it is evident that many words are) or the pupil wrote too little or failed to learn the word properly in the first place. The remedy is not a heavy program of formal spelling review drills but an improvement in the placement of words, in the written composition program, or in other phases of spelling-writing activities.

In reading, such a formal drill program for reviewing the recognition of isolated words has been replaced by provisions for review in full-fledged reading activities of various types of material. Such enterprises in the modern reading program as writing outlines, summaries, or comments on the selection read; rewriting a story in the form of a drama; reporting to the class on materials read outside, etc., stimulate frequent writing. For better instruction in general, the spelling program should provide more incentives and opportunities for writing, reading, and other related activities; and more attention should be directed to the spelling aspects of the varied written work growing out of the reading program.

About a quarter of a century ago, unfortunately, spelling instruction adopted a too restricted program in another sense. It was based on the assumption that each word represented a specific spelling problem and that there was little or no possibility of simplifying the whole

process by attempting to give pupils an understanding of many processes, such as forming derivatives or generalizing many conventions like the *qu* rule, or emphasizing common phonetic elements and syllables, etc. At about the same time a quite different policy was adopted in reading. Much confidence was placed in the child's ability to generalize and transfer, to develop general power and insight, and to acquire independence in word recognition and other activities. Both practical and experimental evidence indicate that this policy was right. Indeed, the value of the generalization and understanding approach has been demonstrated for spelling in the narrow sense. It is time to put this approach on a firm basis in spelling and coordinate it with instruction in reading.

The teaching of spelling is moving swiftly forward to a basis of emphasis on general power and understanding. It has adopted many of the methods and devices used in reading and should invent new ones that will serve reading better. Progress in this direction makes it easier and more fruitful to coordinate and unify teaching and learning in reading, writing, and spelling. When these three things get together and work together as one team, all the language arts will profit immensely therefrom.

Child Tycoon

Jo Ann Durand, of Denver, Colorado, says the *Saturday Evening Post,* is the youngest person listed in Dun and Bradstreet.

Although only 14 years old, Jo Ann operates a thriving manufacturing establishment which employs seven adults and one 18-year-old and which, up to September of last year, had sold 3000 trout flies. Jo Ann makes her own decisions, keeps her own books, types her own correspondence, and computes income-tax and social-security deductions. Her flies are used by trout fishermen from the Great Lakes to Idaho.

It all started when Jo Ann, playing with her father's fly-tying equipment in the basement, decided to surprise him by tying a few flies as a Christmas gift. The first trial was unsuccessful, but Jo Ann, undaunted, studied every book she could get on fly-tying and spent hours imitating the illustrations in an entomology book. Her father found that some of the flies were good and some were not so good—but he told his friends about those that were. And now Jo Ann's hobby has developed into a thriving business. She still maintains, however, that it's no more than a hobby.

With Education in Washington

EDUCATION DIGEST WASHINGTON BUREAU

Favorite project of many a government official is setting up of advisory committees. Frequently these become (1) paper organizations, (2) mouthpieces for the administrator, or (3) rubber-stamp bodies.

Something more, however, is expected from two national advisory committees named this month. Attorney General Tom Clark named a panel of 25 church, business, labor, and education leaders to help him plan a campaign against juvenile delinquency. And—

J. W. Studebaker announced the long-awaited Citizens' Federal Committee on Education to guide his U. S. Office of Education. Among those named are leaders from agriculture, business, homemakers, labor, manufacturers, Negroes, the professions, and religious and veterans groups.

The hue and cry about "overcrowded colleges" is not being accepted in Washington without reservation. The "big name" schools are probably filled to (what would ordinarily be) capacity; but Senator Morse, of Oregon, accuses college administrators of continuing the "tradition of wasting campus space. . . ."

Many of the smaller colleges are still half empty. On a national basis the enrolment for the term ending in June is estimated to be at least 300,000 below 1939 enrolments.

The Veterans Administration is still considering setting up clearing houses which would have facts on which colleges can enroll additional veterans and which cannot. But a late check on this proposal shows that it is being tossed back and forth between the Veterans Administration, the U. S. Office of Education, and the Bureau of the Budget —the agency which has to O.K. funds for the project.

Don't look for any early upswing in school construction. Public-works officials in Washington are pessimistic regarding the total volume of building that can be reached in 1946. They had been hoping for a volume of 2.1 billion; now they say construction may not reach even 1.7 billion. Chief causes: lack of materials, lack of trained manpower, and unwillingness of contractors to commit themselves on prices—especially to public bodies which have fixed budgets. The prices which building contractors may name in March may have to be hiked considerably by June.

Storm signals for institutions of higher learning throughout the Nation were raised in New York City this month as an aftermath of the Dodson Report, which charged discrimination against Jews, Catholics, and Negroes in selection of students by many colleges.

The New York City Tax Com-

mission immediately announced that it would investigate the right of such colleges to tax exemption.

Organizations which had demanded such action may be expected to press the issue in cities where tax-exemption laws for institutions of higher learning are in effect.

For more than six months Congress has been pondering a measure to promote scientific research through the Nation's universities. Senators Kilgore (W. Va.) and Magnuson (Wash.) are doing all they can to see the bill through, but it is stalled in a slow-acting, filibustering Congress.

Unhampered by the long-winded orations, the Navy Department jumped the gun on all federal attempts to promote scientific research. Since February 1 it has been "buying research" from 24 major universities. It is planning to sign contracts with other institutions to encourage research in electronics, nuclear physics, medicine, chemistry, and mathematics.

The Navy will leave the institutions free to carry on their work as they please and to use the project to provide graduate students with opportunities for advanced research.

This may surprise some art teachers, but President Truman says it is so. In his 1947 budget request for federal operations, the Chief Executive reports that attendance at the National Art Gallery in Washington continues to be greater than that at any art gallery in the world. During the fiscal year 1945, some 2,078,000 visitors passed through the stately edifice. An even greater attendance is expected next year when many of the paintings obtained from Germany galleries will go up for exhibition.

The President asked Congress to give the Gallery more money so as to increase the number of traveling exhibits destined not only for U. S. towns but also for Latin American countries.

Expulsion of William H. Johnson, Chicago's school superintendent, has focused attention on a tiny leaflet published by the National Education Association some years ago. The leaflet contains the *Code of Ethics for Teachers,* and it is for violating this code that the NEA expelled a life member and head of the second largest school system in the Nation.

The leaflet itself, reports to Washington show, is now being read and reread with unusual interest by teachers all over the country. Through the years more than 500,000 copies have been distributed, and another large printing will soon be needed. The little leaflet has quite a history, too. Its origins lie in the state code of ethics first adopted by the Georgia Education Association in 1896. Since then 36 other state associations have adopted similar documents and hundreds of other teacher codes have been published. Out of all of these the NEA distilled its own code in 1929.

Educational News

PERSONALITIES: Serving as a specialist in textbooks and instruction under the Allied Control Council in Vienna is **Thomas E. Benner,** dean of the college of education, University of Illinois . . . **John H. Niemeyer** has been appointed to succeed **N. Eldred Bingham** as headmaster of Oak Lane Country Day School of Temple University. Mr. Bingham has been appointed to the staff of Northwestern University's School of Education. . . . **Allan D. Backus,** supervisor of industrial arts, Newark, N. J., died recently. . . . **Otto Mees,** president of Capital University, Columbus, Ohio, has resigned. . . . **Alonzo Kellogg** has resigned his post with the Connecticut State Department of Education to become director of community education, Bridgeport Community Advisory Service Center. . . . **Lt. Cmdr. Floyd B. Moe,** after three years' service with the Navy, has returned to his position as dean of Virginia, Minn., Junior College. . . . Succeeding **Kenneth Ray,** resigned, as state superintendent of public instruction for Ohio is **Clyde Hissong,** who has been dean of the college of education, Bowling Green, Ohio, University, since 1929. Other appointments to the Ohio State Department of Education are: **Melvin Koch,** executive assistant and director of public relations; **Robert Reese,** former assistant supervisor of trade and industry for Indiana, supervisor of trade and industry; **Lawrence Borosage,** assistant supervisor of trade and industrial education; **Joseph R. Strobel,** director of vocational education. . . . **May Murray,** who opened and directed the first office of the International Kindergarten Union (now the Association for Childhood Education) died recently. . . . **Gerrit T. Vander Lugt,** president of Carroll College, Waukesha, Wis., has been appointed president of Central College, Pella, Iowa. . . . **James Reynolds,** former dean of Fort Smith, Ark., Junior College, has been named professor of education at the University of Georgia. . . . **Willis E. Pratt,** former superintendent of Erie County, Pa., schools, is the new head of the department of education at Pennsylvania State College. . . . **Lt. Col. Spencer D. Benbow** has left the Information and Education Division of the War Department to become head of the USAFI. . . . **Marie Finney** succeeds **John W. Gunstream** as director of radio and visual education, Texas State Department of Education. . . . New president of the American Vocational Association is **C. L. Greiber,** director of vocational education for Wisconsin. . . . **Kenneth D. Benne,** of the University of Illinois, has been named associate professor of education at Teachers College, Columbia University. . . . Succeeding **Dennis Perkinson,** resigned, as superintendent of the Portsmouth, Ohio, public schools is **Glen C. West,** of the Ohio State Department of Education. . . . **Louis Foley,** of Western Michigan College of Education, Kalamazoo, and **Mrs. Foley** have been appointed codirectors of the Ecole Champlain, Ferrisburg, Vt. . . . New appoint-

ments to the Educational Policies Commission of the NEA are **Paul R. Mort,** professor of education, Teachers College, Columbia University; and **James M. Spinning,** superintendent of the Rochester, N. Y., public schools. . . . **Ralph M. Lyon** has been appointed chairman of the division of education and director of research, Statesboro, Ga., State Teachers College. . . . **Laurance F. Shaffner,** of Carnegie Institute of Technology, will head the department of guidance, Teachers College, Columbia University. . . . New appointments to the University of Oklahoma College of Education are **S. E. Torsten Lund,** formerly associate professor of education at the University of Tennessee; and **Garold Holstine, Jr.,** of Minot, N. D., State Teachers College. . . . **Watson Dickerman,** formerly program director of the extension division of the University of Minnesota, has been named assistant to the director of the University of California Extension Division and assistant professor in the college of education. . . . **Stella M. Robbins** has been appointed associate professor of education, Oregon College of Education at Monmouth. . . . Succeeding **Robert L. Haycock,** retired, as superintendent of the Washington, D. C., schools, is **Robert Munson Corning,** head of the Omaha, Nebr., schools. . . . **Leslie W. Kindred,** executive director of the Public Education and Child Labor Association in Pennsylvania, has returned to his post as professor of education at Temple University. . . . **P. C. Emmons** has resigned as superintendent of schools at Mishawaka, Ind. . . . Succeeding **Crawford Greene,** resigned, as assistant state commissioner of education for Arkansas, is **H. R. Pyle.** Other appointments in the Arkansas department are: **Myron C. Cunningham,** elementary-school supervisor; **A. B. Wetherington,** high-school supervisor; **William M. Beasley,** supervisor of teacher education and certification; **J. Marion Adams,** former supervisor of trade and industrial education, director of vocational education. . . . **Lt. Col. Clarence Linton,** who has been on leave from his post as professor of education and director of student personnel at Teachers College, Columbia University, will return soon as adviser to veterans in the college. Col. Linton had the responsibility for setting up the off-duty program in the European theater and also assisted in establishing the Armed Forces Institute. . . . Newly appointed field representative of the Surplus Property Utilization Division of the U. S. Office of Education is **M. S. Robertson,** supervisor of research and special services of the Louisiana State Department of Education. . . . **Fannie Dunn,** professor emeritus of education, Teachers College, Columbia University, died recently. . . . **Frank B. Lindsay,** assistant superintendent of public instruction and chief, division secondary education, California State Department of Education, has been appointed to succeed **Edward H. Redford** as editor of the *California Journal of Sec-*

ondary Education. **M. Eugene Mushlitz** has been appointed assistant chief of the division of secondary education. . . . **John Ganrud,** formerly superintendent of the Springfield, Mass., public schools has been appointed educational director of the Western Division of the National Conference of Christians and Jews. . . . **William Van de Wall,** former member of the American Association of Adult Education staff, has been appointed to the educational division of the Allied Group Control Commission with headquarters in Berlin. . . . **Floyd Jordan,** after three years with the U. S. Office of Education, has returned to the college of education of the University of Georgia. . . . **S. D. Williams,** dean, has succeeded **Harold L. Trigg** as president of the Elizabeth, N. C., State Teachers College. . . . Replacing **U. W. Lamkin** as head of Maryville, Mo., State Teachers College is **J. W. Jones.** . . . Newly elected president of Murray, Ky., State College is **Ralph H. Woods,** formerly Kentucky State Director of Vocational Education. **Watson Armstrong** succeeds Mr. Woods as director of vocational education. . . . **Forrest W. Murphy,** superintendent of the Greenville, Miss., public schools, has been named dean of the school of education, University of Mississippi. . . . **Fred A. Smith** has recently retired as Arkansas State Director of Vocational Education. . . . **David B. Owen,** in charge of educational services for the Pacific fleet during the war, has assumed the presidency of Bradley Polytechnic Institute, Peoria, Ill. . . . **James W. Brown** has been appointed supervisor of the bureau of teaching materials, Virginia State Department of Education. . . . **Franklin Dunham,** who served as consultant in radio education to the secretary of war, has been appointed chief of radio in the U. S. Office of Education. . . . Succeeding the **Very Rev. Thomas S. Bowdern, S. J.,** as president of Creighton University, Omaha, Nebr., is the **Very Rev. W. H. McCabe,** former president of Rockhurst College, Kansas City. . . . **Gordon Renfrow** has been appointed director of the new division of veterans education in the Missouri State Department of Education. . . . **Edwin Sasman,** formerly curriculum coordinator for Horace Mann-Lincoln School, Teachers College, Columbia University, has been appointed professor of education and curriculum coordinator, Willimantic, Conn., State Teachers College. . . . **Catherine M. Keogh** has been named city director of guidance in the Saratoga, N. Y., public schools. . . . **Rachel Salisbury,** head of the department of education, Milton, Wis., College, has been given a year's leave of absence to go to Santiago, Chile on an educational mission.

THE San Diego, California, Board of Education recently voted unanimously to retain William Payne, Negro teacher at Pacific Beach Junior High School, for the remainder of the school year although board

members had received petitions from 1900 Pacific Beach residents asking Mr. Payne's transfer on the basis that there were less than a dozen Negro students enrolled in the school. Several letters in the "What the People Think" column of the *San Diego Journal* commended the board.

REVERSING the usual procedure, 27 leading business firms of Appleton, Wisconsin, recently recommended a tax levy amounting to $100,000 a year for a 15-year period to build elementary schools. The firms also recommended immediate adoption of a program proposed by the board of education to construct five new buildings. "We make this recommendation," said the businessmen who signed, "with the full realization that, as large taxpayers, we shall carry a substantial portion of the tax load." This action is interpreted as one of the outcomes of a four-year program which has been carried on by the National Commission for the Defense of Democracy through Education.

ONE of the first activities of the American delegation to the meeting of the United Nations Educational, Cultural, and Scientific Organization in London recently was to initiate a resolution on adult education which was adopted by the organization. The American resolution stated that since the "strength and stability of democratic governments depend on the force of enlightened public opinion" and "adult education has an immediate contribution to make to the enlightenment of the citizens of the world," therefore UNESCO should establish close working relationships with adult-education agencies.

DATES OF THE MONTH:

March 2, Regional Conference, American Education Fellowship, High School for Girls, Philadelphia, Pa.

March 4-7, Regional Conference, American Association of School Administrators, New York City.

March 12-14, Regional Conference, American Association of School Administrators, Chicago, Ill.

March 21-23, Dept. of Supervision and Curriculum Development, NEA, St. Louis, Mo.

March 22-23, Regional Conference, American Education Fellowship, Hotel New Yorker, New York City.

March 28-April 3, Music Educators National Conference, Cleveland, Ohio.

DATES OF THE COMING MONTHS:

April 15-18, Association of School Business Officials, Pittsburgh, Pa.

May 3-4, Regional Conference, American Education Fellowship, Hotel Bradford, Boston, Mass.

May 3-4, American Council on Education, Hotel Stevens, Chicago.

May 3-6, Institute for Education by Radio, Hotel Deshler-Wallick, Columbus, Ohio.

New Books on Education

Thorndike Century Beginning Dictionary. E. L. Thorndike, New York: Scott, Foresman and Company, 1945.

A simplified dictionary for use in the fourth and fifth grades. Definitions are very easy to understand; illustrative sentences are included. The improved format is extremely legible.

Contains 70 lessons for the child on "How to Use Your Dictionary," providing step-by-step instruction on developing dictionary skills. No lesson introduces more than one new dictionary skill; each skill is developed through simple explanations, examples, and practice involving actual use of the dictionary. Furthermore, the major skills, such as locating entry words, comprehending word meanings, etc., are covered at each level. Level one may be used in the fourth grade, or for slow groups; level two may be used for the fifth grade; or both levels may be used for fast groups.

Secondary Education for Veterans of World War II. Gene Oppy *et al.* Columbus: Ohio State University, 1945. 112 pp. 50 cents.

To the millions of men and women who are returning from the armed forces America has an obligation to provide programs by which they can educate themselves for successful civilian life. Particularly important is the school's responsibility to furnish programs to enable those who never finished high school to do so. This pamphlet, based on experience gained at Ohio University School during a period of intensive work with veterans, attempts to answer questions which a school administrator must face in setting up a high-school program for veterans. Problems of testing and evaluation, of guidance and counseling, of ways of presenting the various subjects on an individualized basis are discussed.

Field Work in College Education. Helen Merrell Lynd. New York: Columbia University Press, 1945. 291 pp. $2.75.

This book contributes to current discussions of college education the experiences of Sarah Lawrence College in the use of field work, including observation, participation, and research carried on outside the college. Field work is of utmost importance in developing relations between college and community life; and as a means of translating a liberal education into actual situations, it is being adopted by a number of schools.

The kinds of subjects and the kinds of learning situations in which field work has been found particularly valuable and the types of students for whom it has been most helpful, as well as the situations in which it has failed, are treated.

Psychology in Education. James B. Stroud. New York: Longmans, Green and Company, 1946. 644 pp. $4.00.

Addressed to senior-college and graduate students and teachers, this book provides a psychological treatment of practical problems in education and an exposition of psychological data basic to education. Source materials have been drawn from investigations made in school situations and conducted in psychological laboratories. Containing a considerable body of data drawn from sociology and cultural anthropology, the book can be said to represent an approach to a social psychology of education.

Considerable space is devoted to the psychology of basic school subjects—reading, language, and arithmetic. Discussions of the thought processes, critical thinking, cultivation of the higher mental processes, and retention are especially appropriate to the social studies and science.

Who Shapes the Thinking of High-School Students?

Is the family influence on children losing out in modern life? Apparently not, according to results of a recent nation-wide poll of the Institute of Student Opinion, sponsored by *Scholastic Magazine*. To the question, "In your opinion, which of the following influences your thinking to the greatest extent?", 101,548 high-school students answered as follows:

Family	38.0%
Magazines and newspapers	17.0%
Close friends	11.5%
Radio	10.5%
Community or student opinion	6.0%
School teachers	5.0%
Church	5.0%
Movies	3.0%
Schoolbooks	1.0%
Don't know	3.0%

School teachers came in for only slight recognition, and apparently the textbooks play only a scant part in the forming of student opinion. Taken together, however, the influences under direct parent or teacher supervision—home, classroom, classroom school groups, and textbooks —total 50 percent of the vote.

Typical comments revealed some of the reasons behind the answers. One student said, "My parents and members of my family influence me most because they are most reasonable when I need help."

Another remarked, "My family influences me most because they have about three sides to every argument and I hear all sides offered in not too technical a way for me to grasp."

"My parents know me better than anyone else so I can accept their opinion most easily," said one.

"My teachers, not because of themselves, but because of all I learn through them. Their opinions are seldom prejudiced," was a typical response.

The poll results indicate, however, that parents cannot afford to be too complacent about their victory. Three modern means of communication — the movies, the press, and radio—are credited by nearly a third of all students as prime shapers of their opinions. But magazines and newspapers make a far greater impression on the student mind than either the movies or the radio.

Comments show why newspapers and magazines are rated so high: "Magazines and newspapers because they present both sides of a question and I can choose for myself."

"Magazines and newspapers give a person broader views on political and world situations. As a rule they aren't influenced by prejudices or superstition."

"Radio," commented one. "It gives a wide scope of the world today and opinions of more people and ones that know more."

Clearly the students want reliable facts on which to make up their own minds. This implies the importance of introducing youth to the best in literature and movies.